

Aviation News

McGRAW-HILL PUBLISHING COMPANY, INC.

JUNE 5, 1944

★
Wartime Plane Output Surveyed

Nearly 200,000 warcraft produced, with airframe weight over 1,430,000,000 pounds, data released by Wilson, Wright reveal. .Page 7

★
ATA Eyes Intrastate Developments

Association and federal circles show concern over growing inclination of states to formulate own air regulations.Page 35

★
Arnold Stresses Long-Range Planes

Indicates cut in number of combat types with tapering of output on some models, increases in othersPage 28

★
New Taylorcraft Models Ready

Two prepared for immediate production with 4-5 seat plane and 2-seat cruiser to be offered in year after war ends.Page 16

★
Soviet Bases May Aid Allied Planes

Move would bring decentralized Nazi industries in eastern Reich within better range of shuttle bombersPage 21

★
Air Traffic for 1950 Estimated

Curtiss-Wright survey predicts domestic volume will show 750 percent gain over 1940; world air traffic, 2100 percent.Page 44

★
Reason for Brewster Cancellation

Navy Officers tell Senate body Chance Vought, Goodyear efficiency would have been endangered by equal cutbacks. .Page 11

★
Delays Ahead for Termination Bills

No action expected on contract cancellations before July and on excess goods until late summerPage 13



Navy's New Air Chief: Vice Admiral Aubrey W. Fitch, who for 18 months has directed the joint air operations of Army, Navy and Marine elements in the South Pacific, will soon direct the Navy's overall air picture as Deputy Chief of Naval Operations (Air). The announcement of his appointment comes as preparations are being pushed for large concentrations of land, sea and air forces in the South Pacific for expansion of operations against the Japs. (Story on page 9.)



A Typical Problem SOLVED BY BROACHING

Many years ago broaching took over the problem of mass production and solved it. Today a much more difficult problem is also finding a solution by broaching. It is the problem of maintaining excessively close tolerances and still using mass production methods.

This is a typical problem—to make a cut on the Cam lug stop for the Hydromatic propeller to a

plus or minus .001 and still keep up mass production. With the help of Hamilton Standard engineers, a entirely new idea was evolved whereby guide fingers locked the fixture and broach body in constant alignment in spite of slight slide torque, broach wear or uneven cutting pressure. Tolerances well within limits have been consistently maintained.



One of the precision cuts to make one cam lug in the Variable Pitch Hydromatic Propeller which broach and cam ring is shown above.

The **LAPORTE** Machine Tool Company
VERMONT, MASSACHUSETTS, U. S. A.

THE WORLD'S LARGEST AND LARGEST MANUFACTURERS OF BROACHED AND BROACHING MACHINES

THE AVIATION NEWS

Washington Observer

BROWSTER FUTURE—It is a safe bet that Brewster is virtually out of war production except for minor subcontracting. Both the AAF and the Bureau of Aeronautics have washed their hands of the situation and show no interest in giving the company any more phase contracts. Despite the other valid reasons for canceling the "Canard" contract, the biggest element has been the Brewster labor situation, and if the labor element continues making charges in connection with the cancellations, work for a verbal head-scratcher from Secretary of the Navy Forrestal, who isn't a man to take it lying down.

JET ENGINES—British sources say that the action of the government in taking over Power Jets, Ltd., developers of Group Capt. Frank Whittle's jet propulsion engine, does not mean a government monopoly of that type of engine. Other companies are making the engines and will be permitted to continue, they say, with Power Jets, Ltd., being built up as a technical experience station for research and development work. The British are said to feel that speed in development of the engines is essential and for that reason look over the parent company American companies, notably General Electric—which incidentally has received small credit for its jet work—are conducting identified experimental work in connection with jet units, plans for which were turned over to this country by the British who in return were given information on developments here in a fair exchange.

TRUMAN COMMITTEE—It probably was inevitable in a campaign year, but the difference among some members of the Truman Committee, which has done such excellent work in investigating war production in all its phases, are causing some concern among non-partisans in the Capitol. Senator Truman asserted that Republicans were using disclosures, made as a result of investigations conducted by Democrats, as campaign fodder. Republican members countered that the investigations were not conducted by Democrats alone.

PLANES NOT SHIPS—The habit of calling airplanes "ships" is widespread in aviation, but it's being stopped in the Army. A little-noticed order issued by the War Department noted that use of the word "ship" to designate aircraft has led to serious confusion between personnel of the Army and personnel of the Navy, Marine Corps and Coast Guard. Consequently, all Army

personnel have been ordered to discontinue use of the word "ship" to designate aircraft. And that's official.

NEW "THUNDERBOLT"—Newest use of Republic's P-47 "Thunderbolt" is bombing and strafing enemy installations at low-top levels. Details of the new version, just disclosed, show that the P-47 carries loads load up to 2,000 pounds for operations as a dive bomber. The



New P-47 Fighter-Bomber-Escort

versatility of the plane has been increased and a load of several hundred horsepower and increased internal fuel capacity, doubling fighter range, are reported. Most noticeable change is the new all-metal fuselage featuring an electrically operated bubble canopy giving pilots full visibility.

A E A P—Behind the incredible power of the air assault which continues to rise in new phases, such an assault to reach the limit of Allied capacity, only to be exceeded by another, is the Allied air organization which has reached its present set-up by quick adaptability to changing needs and by steady growth. For a while it was the RAF Bomber Command which carried the brand. To these elements then were added the United States counterpart. And now, another mighty force—little mentioned as a unit—is the Allied Expeditionary Air Force. It is the greatest single air component ever created and its main job is the expeditionary aspects of the war. Commander-in-Chief is Air Marshal Sir Stafford Leigh-Mallory and it consists of three separate forces—Air Marshal Sir Arthur Coningham's RAF Second Tactical Air









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PUBLICATIONS AND TENSURE OFFICE
330 W. 42nd St., N. Y. 36, N. Y.
Mid-West Office: 331 Randolph Blvd., Chicago
Pacific Coast Office: 321 St. Morse St., Los Angeles
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This is a paper. Allow one day for change of address.
Subscription rates—United States, Canada, and Central and South America, \$12.00 per year. Outside North America, \$15.00 per year. Single copies, \$2.00 per copy. \$12.00 per year. All rates payable in advance.
For more information, see the inside cover. Express orders—check money order, bill, or cash. Send the bill to New York, New York, unless the bill is payable to another address.
Address: McGraw-Hill, New York, N. Y.

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Abstract

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1. *Journal of the American Medical Association*, 1997; 277: 1039-1043.



Classroom for Combat

The feel of the fight is built into the Fairchild "Gunner"—an aerial classroom for combat equipped much like those planes that will fly in the assaults on Tokyo.

Fairchild engineers are expert in designing aircraft to do specific jobs well. So, when the Army foresaw the need for a plane with bomber characteristics to train its sharpshooters of the air, Fairchild built the "Gunner." The men who will ultimately lose "quints" of death into enemy paratroops and interceptors, today also sharpen their skill in a plane that gives them the feel of combat operations.

The "Gunner" has twin guns that fire from a power-operated top turret. Its transparent plastic nose houses a manually operated machine gun. Its "office" has controls for pilot and co-pilot. And in landings and takeoffs, the "Gunner" rolls like the heaviest, on a retractable, tricycle landing gear.

With its two 530 horsepower Ranger V-Twelves for power, with its sleek riveted surfaces of plastic-bodied plywood fabricated by the famed Duralumin process, with the aerodynamic stability inherent in all Fairchild designs, the "Gunner" fits with the Fairchild "nauch of tomorrow in the planes of today."

OUT OF U. S. WAR BONDS AND STAMPS

Fairchild Aircraft

Division of Fairchild Engine & Airplane Corporation,
Rogersville, Maryland—Burlington, North Carolina

AVIATION NEWS • June 3, 1944

VOLUME 1 • NUMBER 45

Aviation News
McGraw-Hill Publishing Co., Inc.

June 3, 1944

Nearly 200,000 Planes Produced In U. S. Since Pearl Harbor

Total airframe weight turned out since opening Jap attack is over 1,430,000,000 pounds, summary released by Wilson and Wright reveals; May output estimated at 8,900.

Production of the American aircraft industry since Pearl Harbor is approaching 200,000 airplanes in units — and total airframe weight is something over 1,430,000,000 pounds, an answer to critics of both management and labor in the nation's top industry.

In a pre-aviation summary of aircraft production progress, released by Charles E. Wilson, chairman of the Aircraft Production Board, WPB, and T. P. Wright, director of the Aircraft Production Control Office, figures show that the aircraft industry for the first four months of this year totaled 33,689 planes, averaging a plane every five minutes around the clock (excluding Sundays) at 340 every working day. Adding the 8,900 estimates of May output to this figure, the total for the first five months of this year amounts to more than 42,589 airplanes.

168,000 in 1944—Despite production schedule changes, the industry's output for 1944 will still approach 168,000 airplanes and the total cost of the 1944 aircraft program will be approximately \$18,000,000,000 although the WPB placed the figure about three billion higher.

Wilson and Wright retailed in their progress report that, in January of 1944, the United States turned out only 367 planes—weighing 1,300,000 pounds including spare parts—compared with 8,317, weighing 18,492,500 pounds including spare parts, in March of this year.

Weight Stressed—In numbers, the output of airplanes increased 3,600 percent between January, 1943, and March, 1944. But in weight, the increase for the same period was 4,300 percent. The

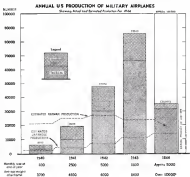
average airframe weight of United States planes has increased from 3,600 pounds in 1943 to approximately 10,800 pounds in 1944. It should be emphasized that this is an average and that the emphasis is increasingly on heavier bombers and long range fighter-escort craft.

The output of airplanes in the United States is now at a rate greater than four to one in com-

parison to Germany's, a significant figure in connection with the utilization of aircraft in the invasion.

U. S. Output Up, Nem Off—In 1943, for example, Germany was producing more than five planes for every one we produced. But by early 1943, our output overtook and passed Germany's. Commenting on the present output of the German aircraft industry, the Aircraft Production Board estimated that the Germans are now producing only about 78 percent of their 1943 output, their peak year, when they turned out about 27,000 planes.

The combined output of the United States and the British Empire since the outbreak of war in Europe is more than 268,000. During the same period, Germany's



New U. S. Tops Nad and Jap Plane Production: This chart, issued by WPB and Aircraft Production Board, an adaptation of one that appeared in AVIATION NEWS in January, highlights the progress of our aircraft output, including estimates of German and Japanese production.

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estimated to have been 116,000 planes, while Japan produced perhaps 41,000. It should be borne in mind that the Germans were producing plane production as far back as 1935. This means they started the war with a stockpile of some 24,000 airplanes.

► **Casualties Flares**—Of our output at this time, about 77 percent are combat planes, and combat and transport planes contribute about 87 percent of the total. Four percent are special purpose types. Only one percent consists of trainers. In contrast to 1941 when the total training program was expanding and 46 percent of the output was trainers. The APB disclosed that the high point of trainer output was in April, 1945, when, 1,982 were produced. Output in April of this year was 778 trainer planes.

The output of four engine bombers as previously announced in AVIATION NEWS was well over 1,000 a month in January and has risen steadily since that time. ► **Horsemanship**—In expanding the aircraft program, engine horsepower, a vital element, is often overlooked. The month-to-month horsepower increase is pointed up by comparing the horsepower of engine output in December, 1941, which was 5,930,930, with the horsepower produced last March, which was 39,810,000, an expansion of six and one-half times and the output is steadily increasing. The increase in horsepower output is almost as great as the in-

crease in airplane weight, which expanded eight times from 12 million pounds in December, 1941, to 101.4 million pounds in March, 1944. The average horsepower per engine was 680 in January, 1941, and last March it was 1,300.

About 31 percent of the nation's manhours go into the production of aircraft, and the production schedule for aircraft in terms of weight continues to rise for the rest of this year—C. S. H.

Aircraft Job Rolls Up 2400% Since '40

Employment in industry totaled 83,000 four years ago against 2,500,000 currently, APB reveals.

The phenomenal growth of the aircraft industry is no better emphasized than in its employment figures, which show that the aircraft industry, including airplane, engine, propeller, industry contractors and accessory manufacturers employed 83,000 persons in January, 1940, compared with current employment of more than 2,500,000—an increase of 2,416 percent.

► **Free-way Figures**—When the war-

time expansion of the industry in terms of total employment is now contrasted with the pre-war size of the industry as a whole, the comparison is perhaps more startling. At present, the aircraft industry, including feeder industries and raw material sources, is three-fourths as large as were the combined United States manufacturing industries in 1940, which at that time employed only 4,150,000 workers. The present aircraft industry and subsidiary industries now employ more than 3,000,000 workers.

► **Efficiency Rate Up**—The report emphasized again that the output per employee in the aircraft industry has moved ahead with the increase in employees. During January, 1944, each employee averaged 23 pounds of airplane weight per month, while in the first four months of this year, each employee averaged 74 pounds of airplane weight, an important factor in the accelerated production. The same sort of gain in labor productivity is disclosed by the fact that in 1940, it took 156 workers a month to produce one airplane weighing 10,000 pounds, while in 1944 it requires only 137 workers one month to produce an airplane weighing 10,000 pounds.

The increase in labor productivity is clearly seen when expressed in terms of specific airplanes. The first four-engine bomber in one plant, for example, took 200,000 man-hours to produce, while at present, for the 4,500th plane only 10,000 man-hours are required. The same is true of a typical fighter-plane, which took 35,000 man-hours for an early model, but only 4,000 man-hours for the 3,599th.

Move Safety Offices

Regional safety offices of the Office of Flying Safety, Headquarters, Army Air Forces, are being relocated on a group basis, and regular surveys have been ordered to reduce the number of aircraft accidents in the AAF.

Gen. H. H. Arnold, AAF commander, has ordered safety offices given areas to command responsibility. At all AAF installations for the purposes of the survey, and reports of safety offices will be given to commanding officers of each installation for remedial action and then forwarded to the Office of Flying Safety in Winston-Salem, N. C., for coordination in obtaining a better overall safety record.

AVIATION CALENDAR

June 14—Detroit Army Air Base
June 14-16—Defense Management Conference, Room 410, 1600 Michigan Avenue
June 14-16—Fremont Ordnance Meeting, Room 100, 1000 Broadway, Washington
June 15—Great Virginia Flying School, 10000 Aviation Avenue, Chesapeake
June 15-17—American Association of Airport Executives, Hotel Sherman, Chicago
June 15-17—Air Traffic Association of America, Hotel Sherman, Chicago
June 15-17—National Business Meeting, National Business Association, Chicago
June 15-17—National Aircraft Engineering and Production Meeting, Los Angeles
June 15-17—National Office of Aeronautics and Astronautics, Washington, D. C.
June 15-17—National Air Corps Meeting, Chicago

Unfinished Ports To be Completed

Airports on which construction was stopped when war needs slackened last year, will be completed, it was learned last week.

Resumption of the work is expected to be ordered within the next two weeks as a result of a conference at the national security commission representing 65 Congressmen and President Roosevelt, in which the Congressmen pointed out that the government had incurred a moral obligation to construction.

More than \$4,800,000 has or will be contributed by the communities for the airport sites and improvements. Completion of all 26 projects in 17 states will represent an investment of approximately \$38,000,000.

► **Conference**—A committee headed by Rep. Jennings Randolph (D, Va.) and including Rep. Thibault (D, Pa.) and Rep. Stevenson (D, Wis.) and Sen. Glavin (D, Pa.) and Sen. Burton (R, Ohio), conferred with the President at the aftermath of a meeting of 34 Senators and 24 Representatives called by Randolph to examine the position in which communities found themselves after purchasing sites at the request of the government.

Airports as which construction is expected to be resumed soon are: Alameda, Calif.; White River, Fla.; Decatur, Quincy and Springfield, Ill.; Danbury and Waterloo, Ia.; Lawrence, Mass.; Peillon, Mich.; Benfield and Detroit, Minn.; Springfield, Mo.; Des Moines, N. Y.; Greenville, N. C.; Batesville, N. C.; Denton, Mansfield and Springfield, Ohio; Johnston and Wilkes-Barre-Servotte, Pa.; Danville and Georgetown, Tex.; Danville, Va.; Martinsburg, Parkersburg and Wheeling, West Virginia (Cumberland, Md. airport), Pa., and LeCrown, Wis.



Fitch and Son in South Pacific: Admiral Fitch is shown here shaking hands with his son, Ensign Jack Fitch, USN, at Guadalcanal against the background of his PT-57. The admiral has two sons in the Navy.

Fitch Choice as Naval Air Chief Preceding Big Pacific Push

Appointment of admiral comes on eve of large-scale concentration of air strength and other forces for expanding operations against Japs.

Navy's top air post has gone to a man who for 18 months has directed unified air operations of Army, Navy and Marine elements—Vice Admiral Aubrey W. Fitch. His appointment comes at a time when unified operations in the Pacific are increasing, and as preparations are being made by all services for coordinated operations involving a heavy transfer for Army Air Forces strength to the Pacific for the next large-scale move in the Japanese war. ► **Awarded DFC**—Fitch recently was awarded the Army's Distinguished Flying Cross for his work in coordinating the joint operations as Commander, Aircraft, South Pacific.

While Fitch might have been a vice admiral and awarded with the insignia if unswayed by Navy designation of COMAIRCOPAC, he is known far and wide as "Jaki" Fitch and his command in the South Pacific seldom knew when "Jaki" would drop in by plane. He flew constantly, always as commander of his transport. Fitch had his flag aboard the *Leeward* as commander of an air task group when

planes—he felt that a lot of planes he should."

► **In Navy Air Since 1928**—Fitch has been attached to the Navy's air arm since 1928, when he was ordered to flight training at Pensacola. He won his wings early in 1930 and was assigned to several months' duty at the Naval Air Station, San Diego, until he took over command of the USS Wright and subsequently the USS Lexington. From 1933 to 1935 he was commanding officer of NAS, Norfolk. Then he served for a year as chief of staff to the Commander, Aircraft, Battle Force, aboard the USS Scorpion. The following year he commanded the USS Lexington. Later he attended the Naval War College and served as commanding officer, NAS, Pensacola.

At the outbreak of war, he was back aboard the familiar *Scorpion* as commander of Carrier Division One, and it is characteristic of the admiral that the carrier forces were not caught napping at Pearl Harbor when war came. ► **Stock Jay**—Commander Fitch had his flag aboard the *Leeward* as commander of an air task group when

Aircraft Production Costs

The yearly cost of the United States aircraft program during the period 1941-1944 is summarized below, as given by WPA Aircraft Production Board and the Aircraft Resources Control Office, together with the annual increase and weight of airplanes.

	Total Value of Aircraft Produced	Number of Planes	Total Airplane Weight
1941	\$1,700,000,000	50,000	95,000,000
1942	8,800,000,000	117,874	292,000,000
1943	12,500,000,000	126,016	312,000,000
1944	20,000,000,000	150,000*	525,000,000*

* 1944 increase through May 41,000 planes.

Month	1940	1941	1942	1943	1944
Jan.	267	1,016	3,960	3,813	5,798
Feb.	255	956	3,099	4,553	5,760
Mar.	298	1,125	3,497	5,081	6,117
Apr.	317	1,268	3,841	6,072	6,793
May	409	1,335	3,949	7,124	8,900 (est.)
June	432	1,374	4,000	7,124	8,900
July	461	1,465	4,129	7,253	
Aug.	528	1,553	4,251	7,512	
Sept.	515	1,611	4,307	7,585	
Oct.	617	2,273	4,653	8,362	
Nov.	707	2,951	4,713	8,759	
Dec.	728	3,000	5,000	8,900	
Total	6,000	18,300	61,712	55,945	65,000 (est.)



Rear Admiral A. W. Radford

the Battle of the Coral Sea was fought, and feet aircraft sank one Jap carrier, severely damaged a second and sank a Jap cruiser to lead off Jap advances in New Guinea and toward Australia. He lost his flagship in the engagement, the first American carrier loss of the war. He was awarded the Distinguished Service Medal for his outstanding work in that battle.

In September, 1943, he was assigned as Commander, Aircraft, South Pacific, the post he held when recalled to become Deputy Chief of Naval Operations (A-3).

Until he assumes his duties, Rear Admiral A. W. Radford will be acting Deputy Chief of Naval Operations for the Admiral Radford has served as assistant to Vice Admiral John S. McCain, who has been assigned to duties in connection with studies of duplication of Army and Navy functions

DuPont Develops New Canopy Plastic

R. E. du Pont de Nemours and Co. announced last week that it had devised a new plastic—designated "Lustrite-Buformic"—designed to give added protection to Army and Navy pilots by retaining combustibility of fragmentation of clear plastic canopies when pierced by bullets or fak while flying at high speeds under pressurized conditions.

Army and Navy tests have shown that the new three-ply plastic sheeting has a self-sealing tendency, under certain conditions, and bullet holes will close almost immediately. The outside layer is made of Buformic polybutyl terephthalate which gives the material a rubber-like characteristic.

U. S., Russia and China Discuss Post-War Aviation Policies

Hull announces American plans for consultations among "Big Four" and others later on formation of a world peace and security organization.

The government was engaged last week in selling Russia and China on the principle of freedom of commercial transit for all nations which desire to participate in international flying after the war. As discussions took place, Secretary of State Hull announced that he was ready to open consultations with these two countries and Britain and later others concerning an international peace and security organization—consultations whose outcome will tell whether the United Nations can lay the broad framework for collaboration in peace as in war.

Other Topics—Into the middle of the Big Four and other Allied countries are endeavoring to lay out, aviation arrangements—commercial and military—will fit consequently with those on monetary stabilization, telecommunications, petroleum distribution and other individual inter-union problems.

It is obvious, therefore, that the degree to which Hull's world aviation arrangements are accepted by other countries will offer important indications of these countries' intentions in the matter of removing artificial barriers to the advancement of aviation.

Problems—The question, for instance, of whether Russia will enter enthusiastically into economic and political collaboration with other nations besides down, on the aviation level, to one of whether Russia will be interested in greater freedom for international air operations, with equitable participation for all concerned on a mutually fair economic basis, or will be inclined to concentrate on the development of her own internal services with unilateral action in such international ventures as air transport.

Russian Policy—Likewise examination of Russian aviation policy and intentions are being sought for indication of the course the Soviets will pursue in the larger sphere envisaged in the Hull conclusions.

Whatever has been produced by the aviation talks with the Russians, or with the Chinese for that

matter, is a well-guarded secret as of now.

The wisdom of this course may be challenged in light of the recent rumor purporting out of the Anglo-American conversations. Because Assistant Secretary of State Adolf Berle, Jr., has refused to discuss these talks, against the advice of some of his associates, the public has asked on press reports of statements by Lord Beaverbrook in the House of Lords. An erroneous report that an American-sponsored plan, including right to discharge and pick up passengers anywhere in the world had been approved by the British, caused the State Department considerable anxiety during the past fortnight.

Hull Intercedes—It resulted in Hull having to take out time from his arduous duties to inform the Senate Aviation Committee that Berle made no commitments while in London. This could have been avoided by a frank discussion between Berle and the committee, the records in which ground covered at London could have been expounded fully. Hull's letter is now in the hands of the committee and seems to have satisfied members.

Conferees

Conferees in the present aviation talks are:

For America: Ambassador Joseph C. Grew, Assistant Secretary of State Adolf Berle, Jr., Civil Aeronautics Board Chairman L. Welch Pope, Assistant Secretary of Commerce for Air William A. M. Burton and Chief of the State Department Aviation Division Stanley W. Morgan.

For Russia: Ambassador Andrei A. Gromyko, First Gen. L. G. Radtsig, Maj. Gen. A. A. Amererik, Maj. Gen. S. I. Petrov and Col. P. F. Beresin.

For China: Minister of Commerce of Kuomintang Liu Chieh, Minister of Transportation Chang Kuo-Yung and Maj. Gen. P. T. Hsieh of the Chinese Army Air Force.

The conferees with regard to these aviation talks in that they are nothing more than discussion sessions in which the two countries concerned exchange views. To report what goes on, it is held, would be prejudicial to the interests of both countries, because nothing conclusive is done.

No such forthright public discussion of the Treasury's international money stabilization plan, with the result that reasonably full information was obtained after such discussions with a foreign country when the plan was in preliminary stages. The international monetary conference opening July 1, accordingly will have no air of mystery, and a position which by comparison with aviation is unspeakably dull has been thoroughly publicized by the officials whose duty it is to provide solutions.

Agreement—The agreement for the talks with Russia and China is identical with that used by the American delegation in London. The Russians and Chinese brought none of their own.

The conferees are discussing the various degrees of freedom of air, desirability of cheapening subsidies and preventing unnecessary competition, standardization of rates, safety measures, weather and other navigation aids, use of airports and related matters. The Americans propose an international air convention embodying freedom of commercial transit, and an international regulatory commission with power only to make recommendations.

Concern Over Russia—Some concern has been expressed here about the case with which Russia could outdistance American operators through employment of government subsidies and utilization of what by American standards is cheap labor. The development of her internal economy and her decision as how far to go in multilateral action will determine Russia's place in post-war commercial aviation competition.

China, it is believed, will be interested in having her air service built up with foreign capital and aircraft, and according to United States officials should find freedom of commercial transit negotiable.

The presence simultaneously of both Russian and Chinese experts may afford an opportunity for three-cornered talks on relaxation of air sovereignty which, officials believe, will be the interest of American operators flying great circle routes to the Orient.

Navy Discloses Background Of Brewster Cancellation

Officers tell Senate Military Affairs subcommittee Chance Vought and Goodyear efficiency would have been endangered by an equal cutback at all three plants.

By WILLIAM G. KEY

The Brewster portion of Corsair fighter production for the Navy was cancelled because equal cutbacks at all three companies making the Corsair would not have permitted efficient utilization of any one plant. Further, it is imperative that the production personnel of Chance Vought and Goodyear be maintained for the newer fighters under development.

Rear Admiral D. C. Ramsey, chief of the Bureau of Aeronautics, gave these facts to members of the War Contracts Subcommittee of the Senate Military Affairs Committee last week.

No Further Orders—Brewster had as prospect of further Navy orders, had the highest costs, and was the smallest producer, Ramsey informed Sen. James E. Murray (D. Minn.), chairman of the subcommittee, who had said the Brewster case might be considered a "test case" of reconversion policies. No comparable situation exists in connection with any other aircraft companies, Murray was told.

Ramsey testimony followed bitter protests made before the subcommittee by Preston Lockwood, new president of Brewster, and

Richard J. Frimhamman, UAW-CIO vice-president. Both asked extension of the contract until 1,950. Congress had been persuaded by Brewster, which they said would enable the management to obtain other work. Adm. Ramsey said such an extension would not be justified in view of the Navy's current needs, adding that \$166,666 would be saved by the Corsair cutbacks, more than half of which is being obtained by the Brewster cancellation. Ramsey said that the cancellation was the result of a purely military evaluation, based on combat reports that were not completely available until May 11. On the 16th, he said, the Aircraft Production Board was warned that the Brewster cancellation was coming, and the company was notified on May 18. The decision to end the contract with delivery of the 194th plane before July 1 was transmitted to the company on the 19th and formal termination notice was given on May 20.

D. C. Fessick, Brewster vice president, said that production on the Corsair contract was valued at between eight and nine million dollars a month and that the worst the company could expect from subcontractors would be one or two million dollars a month.

Law Efficiency—Ramsey said that the man-hour efficiency of the Brewster plant was much lower than Chance Vought and Goodyear.

Using 193 at Brewster as an index, he said that Goodyear's efficiency was 67 and Vought 47. If Brewster cost could be reduced, he said the man-hour index might drop to 90 or 95. Both Ramsey and Maj. Gen. B. E. Myers, declared that there was no intention on the part of either side to force the Brewster plant new contracts for plane production.

AAF Not Interested—Myers told the committee that the AAF was notified of the cancellation through General Eugene Dornberger, who has endeavored to find new contractors with subcontracts for



TRANSFORMERS:

Two- and three- and four-engine aircraft were designed to furnish a vehicle to several instruments such as the remote indicating compass, are being produced by General Electric. Dimensions of the new product are shown in relation to a watchface.

Brewster. But the AAF is not interested in its use as a producer of airplanes, he said. Reverting to the labor situation plants, Myers said there were other aircraft plants in the New York area interested in any labor available as a result of the cancellations and that recruiting agencies had been set up as the Brewster plant for that purpose.

House Naval Affairs Committee, which investigated the Brewster situation, commended the Navy and said the committee "approves every detail" of its handling.

Stress Labor Problem—Adm. Harnett answered Sen. Murray's suggestion that the production troubles of Brewster were due to poor management by saying that labor troubles were also a factor. He said that Brewster had been told it could use the Johnsville DPC-built plant if it obtained contracts requiring its use, but that if it could not, it was sure the Bureau of Aeronautics could use it. Army witnesses said some confusion was being given to the use of the Johnsville facility as an ordnance plant, but that it "may be that the Navy will have some other use for that plant."

As the time of the committee hearing, workers at the Brewster plant were conducting a "sit-in" demonstration protesting cancellation of the contract, resulting in the plant at night and working on the 15th planes still scheduled for delivery during the day.

Blitz "Wall Street"—Franklin Roosevelt charged that politics was behind the cancellations, and said that labor feels that "like top Navy is a Wall Street Navy." He granted that efficiency in the Brewster plant was lower than that of other companies, but claimed that it would have equalled others by the end of the year.

FEDERAL DISTRICT

Additional Funds For Airport Outlay

Summary of week's activities in U. S. and war agencies

By MARY PAULINE PERRY

Largest authorization for construction of improvements at Army Air Forces installations let by the War Department during the week was for the airfield at the Fort Creek Airfield, Assembly Plant, Fort Crook, Neb. The expenditure for improving the airfield has been authorized in the amount of \$1,238,840.

Construction of hangar, paving, and gasoline storage at Duluth Airfield, Tex., will cost approximately \$383,900.

House Pass—Two authorizations have been granted for essential utilities and improvements at the Army Air Station, Murco, Calif. One contract calls for expenditure of \$730,890 and the other

for \$300,000. The latter is for airport and airfield additions.

The Chief of Engineers has let contracts for maintaining, to approximately \$1,072,076 for additions to AAF installations. Included is a contract for \$382,870 for extension of apron and raising of tarmac at Gravelly Point, Va., and one for \$343,118 for construction of an engine test building at Brookley Field, Mobile, Ala.

The Army-Navy "E" has been awarded to the Ford Motor Co., Ford Glider Plant, Lincoln, Missouri, and General Motors Corp., Detroit, Transmission Division, Detroit.

Defense Plant Corp. has increased its contract with Goodrich Aircraft Corp., Akron, to provide additional facilities at a plant at Litchfield Park, Ariz., a total of approximately \$475,990, resulting in an over-all commitment of about \$8,263,689.

War Production Board and War Relocation Authority announced in February, if it presents itself to the War Relocation Authority, it may be able to secure a contract for the construction of a new plant at the same site as the one now being constructed at the same site.

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Western Hemisphere Air Regulation Seen

Early action expected following appointment of American delegates by Hull.

Now that United States representatives on the Permanent American Aeronautical Commission have been appointed by the Secretary of State with the President's approval, action may be expected by this group looking toward uniform air transportation regulation in the Western Hemisphere.

Called CAPA for Common Aeronautics Permanent Association, the organization was set up at a Lima conference in 1937. Ultimate participation by the 33 American republics is expected, but fewer than that have notified the plan thus far. Data and plans for the first meeting probably will be set soon.

Headed by Ryan—The United States membership is headed by Oswald Ryan, member of the Civil Aeronautics Board, as chairman. Others on the U. S. delegation include William A. Ruliford, of North Carolina, William A. M. Barden, Assistant Secretary of Commerce; Senator Robert Champ Clark, of Missouri, and Carl L. Loomis, Assistant Secretary of War. Arnold W. Keating, expert on international air law and currently law at the Department of Justice; Stephen L. Latham, an law expert at the Department of State; Stanley Morgan, chief of the Aviation Division at the State Department; Dr. Francis W. Beckwith, chief of the U. S. Weather Bureau; and Theodore P. Wright, director, Aircraft Resources Control Office, Aircraft Production Board, War Relocation, War Department. These are new members of the U. S. commission, terms of members of a similar group set up in September, 1941, having expired.

Uniform Air Law—CAPA activities will aim at achievement of uniform air law, regulations and procedure in the hemisphere, and coordination of international air services with uniform air law, terms of the various national laws. This probably will cover codification of public and private air law, uniform standards of air navigation, immigration, customs, registration, aviation bonds, airport, and traffic rules, emergency and control of traffic, airworthiness standards and similar subjects.

Delays Ahead for Legislation On Terminations, Surplus Disposal

No action now expected to be taken on contracts before late July and on excess goods until the end of summer.

It appears fairly certain that there will be no contract termination legislation until late in July, and no legislation enacted to control the disposal of surplus goods until the end of the summer.

While even Congress would admit that this is way off the timetable and far from what is even reasonably foreseeable, the fact remains that House and Senate are still 300 miles away from a final agreement on termination legislation to get anything whipped into final shape and passed before July 15.

Delay—Several weeks are Capitol strategists were confident that termination would be passed by both houses before June 1. This date was set unofficially as the deadline, and both houses were working toward enactment of termination legislation at that time. But the strategists overlooked the fact that Congress is constantly only in its availability, and several last-minute changes by the House Judiciary Committee in the Senate-approved S. 3718 appeared this week as a new delay factor.

If nothing else, the House Judiciary Committee bill will mean that the measure will have to go to conference. There are now differences between the two measures which will have to be reconciled.

ended. Conference move quickly, but even the least cautious in Congress will acknowledge that little can be expected from a conference on this measure in less than a week or perhaps longer. Weeks add up rapidly in Congress.

Differences in Bills—The House Judiciary Committee bill was expected to be reported about June 1. It will differ from S. 3718—the S. 3718 termination bill—in two important respects: it will contain a simplified appeals procedure, and provisions will be made for shareholders of contracting or goods-producing firms and corporations.

The Judiciary Committee bill is not expected to change greatly the language of S. 3718 with respect to liability of the contractor's surety. The House bill, however, the most hotly contested issue in the entire termination discussion, and it is not unlikely that a bitter fight will develop when the Judiciary Committee bill is brought before the House. As it is expected to be reported, the Judiciary Committee bill will limit the comptroller general's authority to the determination, after final settlement, whether the settlement payments were made in accordance with the contract, and whether the records warrant a reasonable belief that the settlement was induced by fraud.

Clayton Works on Program—Previous standpoint of legislation, the disposal issue lagged far behind termination. However, it appeared this week that Will L. Clayton, Surplus War Property Administrator, had completed his preparatory program, when he announced that he would have ready to present to Congress in another week his recommendations for disposal legislation.

Although several disposal measures already have been introduced, largely designed to regulate the disposal of various specific items, Mr. Clayton's blueprint undoubtedly will form the basis of whatever disposal legislation is finally enacted.

Disposal Problems Studied—Up to now, the Surplus War Property Administration has been furnishing itself with disposal problems



MARS CARRIES GREATEST AIRMAIL LOAD

These tanks stored near the Mars Mars contain 25,000 pounds of mail from the Pacific—400,000 letters at an average of one-half ounce per letter. If paid for at prevailing rates postage would total \$100,000. While this load breaks all previous records for airmail, it is 10,000 pounds short of the all-time record payload of 35,000 pounds which the Mars carried from Berlin, Germany, to Port of Spain, Trinidad, on its first war mission for the Naval Air Transport Service.

and gaining experience to use in drafting legislation. This is in line with recommendations of the Harsh-Hilcock War and Post-war Adjustment Policies report, which stated that "the Strategic Administrator report to Congress as soon as possible on legislation needed."

Meanwhile, it appeared that the War Production Board was getting ready for the deluge of cables which have been threatened since the beginning of the year when Chairman Donald M. Nelson announced that he was assuming chief responsibility for program readjustment to the Postwar Reconstruction Committee, headed by Vice Chairman Charles E. Wilson. Program readjustment will consist largely of building the vast problems which will grow out of the release of facilities and manpower.

S. Paul Johnston Gets Navy Duty

S. Paul Johnston, Washington representative for Curtiss-Wright Corp., has been assigned to active duty with the Navy, in which he has been a reserve officer for several years. It is understood he will serve as a lieutenant commander.

Mr. Johnston attended Carnegie Institute of Technology and received a degree in mechanical engineering at Massachusetts Institute of Technology. His early experience was with Aluminized Co. of America, which he finally served as staff chief engineer at Pittsburgh.

He became associated with *Aerospace Magazine* in 1931 and was editor in chief in 1940 when he went to the National Advisory Committee for Aeronautics as coordinator of research. When that job was completed in 1942 he joined Curtiss-Wright. He is the author of numerous articles and has books on aviation, most of which in *Wings After War*, an estimate of post-war aircraft and air transport activity.

Ports of Entry

Redesignation of three airports as ports of entry for civil aircraft and the cargo carried on such planes was announced by the Treasury Department.

The municipal airports at Havre, Mont. and Watrous, N. Y., and the John G. Heide Airport, Sandusky, Ohio, were redesignated.

ACCA Maps Public Education Drive

An immediate result of the revitalization of the Aeronautical Chamber of Commerce will be the launching of a broad program of public education under the direction of the Chamber's new Public Relations Committee operating through Hill and Knowlton with Lee and Loeb as the West Coast outlet.

The program will be developed under four general headings, including a record of the achievements of the aircraft industry, discussion of the reconstruction problem with its many factors such as termination, location and labor, promotion of America's place in the air future based on a solid aircraft manufacturing industry and the advancement of a firm air policy on the contention that a strong air commerce will result in a strong international position for the United States.

Media—The program will be based on standard accepted media, such as newspapers, magazines and radio and probably will include motion pictures. In addition, a speakers' bureau will be established in the Chamber to provide top industry leaders for speaking engagements and through which all speakers, whether from the industry proper or from the Chamber staff, will clear in order to

keep all proceedings directed at the overall educational program.

Rayne E. Wilson, of United Aircraft; Avery McFie, of Glenn L. Martin Co., vice chairman of the Public Relations Committee in the absence of L. B. Lyman, of United Aircraft, conferred in Washington last week with John Lee, who has taken over the Chamber organization job on a three-month basis, after resigning as manager of the aircraft War Production Council, West Coast.

Campaign—The international campaign program will be submitted to the Chamber's regional boards of governors in Los Angeles June 16 and in New York June 21. The advent of Lee in Washington points up the operation within the Chamber of the Aircraft Manufacturers Council, as a Chamber division. Members of the Aircraft War Production Council on both the East and West Coasts are also members of the Aircraft Manufacturers Council, which deals with subjects outside the jurisdiction of the Aircraft War Production Council. Lee will coordinate the work nationally.

This division deals strictly with aircraft manufacturers' problems of the Chamber membership, which in its entirely covers many other phases of aviation. The Aircraft Manufacturers Council, it is indicated, will play an increasingly important role in the affairs of the National Trade Association.



CANADIAN AIRCRAFT INDUSTRY PRODUCTS:

Canada's largest and most modern aircraft are shown here together. In the background is the four-engine Lancaster bomber made by Victory Aircraft, Ltd., Toronto, and parked nearby between the bomber's wheels is the Curtiss elementary trainer made by Fleet Aircraft Ltd., Fort Erie, Ont.

WEST COAST REPORT

U. S. Eyes Mexican Cabotage Problem

Policy supported by Pan American is opposed by American Airlines.

By SCHOLER BANGES

State Department officials undoubtedly are watching for results of the test of two opposed principles of international airline operation in Mexico.

The attitude of the Government of Mexico, when given word of official interest in determining whether the United States officially will Brown upon or encourage cabotage in the extension of U. S. air commerce into foreign lands.

Opposed by PAA—The American Airlines System, pioneer of service to Mexico City, has been an exponent of cabotage in a business form through domestic Mexican subsidiary routes involving participation of Mexican capital.

PAA officials have good reason to feel that they are entitled to Mexico's governmental good will by having fostered domestic aviation south of the border.

Opposed by Airlines—At the same extreme is American Airlines de Mexico, also flying to Mexico City. Americans are certain that its expressed "No cabotage" philosophy, one of leaving the development of Mexican domestic air service up to the Mexican Government and Mexican capital, will serve best the furtherance of post-war international good will—and Mexican good will toward American Airlines.

Sigs Hallett R. Thompson of New York, who has lived in Mexico for the past two years as president of American Airlines de Mexico and who has just been appointed vice-president of American Airlines in charge of route development.

"In the protection of our foreign services we want no local business, no domestic routes operated by American Airlines within the foreign countries we reach with our international trunk lines. We do not want cabotage in foreign countries, and we feel that foreign airlines should not have cabotage rights within the United States."

WIKKICK—Douglas Aircraft Co. recently sent a representative to Mexico City to investigate the possibility of successful operation of a

branch factory there. A potential Mexican market for cargo and passenger planes seemed alluring. However, following the investigation, Douglas grew cool toward the idea, which now is on the shelf.

New 'Copter Design Tested at Detroit

The second helicopter design to be announced in this area is expected to be the new H-100, an aircraft distinguished by counter-rotating rotors and pusher propeller arrangement, developed by Arthur C. Schow, local aeronautical research engineer and member of the Detroit Engineering Society.

The new helicopter is said to resemble a Focke-Wulf machine flown successfully in Berlin in 1937. The German ship was about one hour and 30 minutes and climbed in 11,000 feet.

Pusher Type—The Detroit designer pointed out that the Nazi craft had a tractor propeller, however, whereas the H-100 is a pusher type and superior in performance.

"The Germans were close to the right answer," he said, "but wind tunnel tests show that unstable conditions result from placing the propeller in front of the rotor. The propeller is thus forced into the downward slipstream of the main rotor, causing turbulence. With the prop located in the rear, this doesn't occur."

Radio Wind Tunnel—A wind tunnel has been constructed by Schow. Of his own design, it is

unique in that a flow of air can be exerted on the test craft from any direction.

A two-passenger utility-type craft, the H-100 has a height of 8 feet 10 inches, is 12 feet 6 inches in length, and with its rotor blades extended, has a width of 24 feet. Rotor blades are 10 feet long and fabric-covered. In addition to the two passengers, the craft will carry 70 pounds of baggage. Instruments are conventional, and there are lights and parking brakes. Of all-metal construction, the ship is streamlined and capable of dual-control operation.

Blades—Schow's new rotor blades have been developed for this 'copter, Schow explains. He says he believes they will "revolutionize" helicopter development, since, on conventional types, rotors have been made of wood.

The H-100 is powered by a four-cylinder 108 hp Continental engine. This, Schow says, will enable it to reach 18,000 feet and cruise at 95 mph, with top speed

Tests Made—Schow, who was formerly with the Curtiss and Stratton firms, and who has been a licensed pilot for 10 years, says experimental tests have been "extremely successful" to the extent that plans are being made to manufacture the craft in this area at an estimated cost of \$2,000. He will publish a book on helicopter aerodynamics soon. He will be chief engineer for this, as yet, untested item.

Two-Week Courses For CAP Cadets

The Civil Air Patrol entered last week as a modified Citizens Military Training Corps program when the Army Air Forces issued a directive permitting selected groups of Civil Air Patrol Cadets attend AAP installations for periods of approximately two weeks during the summer months.

The directive also revealed that a pre-flight text book has been prepared for the CAP training liaison officers are directed to make available to the CAP various training aids and materials and field and technical manuals where needed. Advice also will be given in various phases of instruction.

Drop to Two—The CAP Cadet program has been operating for more than a year and is open to youths between 16 and 18.

C-54 Tests Asked

The airlines have asked the Army to make a C-54, cargo version of the Douglas DC-4, available for the Army's Air Corps. The Air Corps has indicated that in the meantime, design studies are going forward against the latter DC-4 may become available for passenger traffic.

While cargo performance of these ships is well known through use, CAP tests are needed, it is said, because their adaptability to passenger use. The airlines hope these tests may be completed by the time the big drive are available commercially.

Similar requests have been made for the C-47, cargo plane of the DC-3 type, and the C-45 Curtiss Commando.

Two Taylorcraft Models Ready For Production After War Ends

Two more designs, a 4-5 seat plane and new side-by-side, 2-seat cruiser to be offered within year after conflict.

By BLAINE STUBBLEFIELD

Taylorcraft plans to start production, as soon as relief from war work will permit, on two existing models: the side-by-side trainer and the side-by-side deluxe, for initial post-war delivery.

But company engineers are developing a 4-5 seat design, and a new side-by-side two-seat, cross-country plane to be offered within a year, more or less, after war contracts are terminated.

Busy on War Work.—At present, Taylorcraft's capacity is mostly devoted to production of lightly-restricted military aircraft and components, on which there will be an interesting antecipation in a matter of months. Present work will expand and occupy a new fab by 100 foot steel and brick factory addition, now nearing completion.

The company owns outright all of its plants, on the city lands of Alliance, Ohio, with an adjacent airport. It is planned to use all space and facilities presently reserved for aircraft production, but these are well suited to the manufacture of other durable goods in case the surplus market is smaller than anticipated. Officials estimate their plant can turn out 3,000 planes a year running one shift, or 5,000 on two shifts.

Safety and Utility.—The experience and management of Taylorcraft, known world-wide as a pioneer in the design and production of light planes, are primarily interested in safety first, then utility and durability, and they will take all the speed they can get as a further consideration.

They are sold on certain non-shock, non-open characteristics already proven, and on certain applications of the simplified two-control system. They are interested in the advantages of power. They believe there will be a limited market for single-seater economy planes, more or less in

the motorcycle class, but do not commit themselves to production of one.

Conservative on Outlook.—Taylorcraft is not optimistic that the average light plane producer can outgrow the post-war market. Officials do not believe there will be any sudden phenomenal acceptance of personal flying. They anticipate a better than pre-war market, steadily rising, over a long period, to final realization of mass ownership of small, non-scheduled aircraft. Perfection of safety, utility, economy and speed probably will have to be developed the hard way, a step at a time. They do not look for profited personal use of helicopters for several years.

Some manufacturers are convinced that future distribution and sale of light planes must be turned over to trained salesmen. They do not believe pilot-oriented men are good salesmen. If a good salesman can do, that is fine, or he can have the ship demonstrated by a professional pilot. But Taylorcraft feels differently.

Sales Methods.—They intend to

stay with their existing sales organization, which is pretty much intact. Most dealers are fixed base and airport operators, adding to their revenues by sales of parts and services to planes in operation. Taylorcraft reasons that the word of a professional pilot, who has established his reputation in the community, is more impressive than any amount of dulled sales talk by a non-flyer. They admit that no doubt many pilot dealers need sales training. They believe that airplanes will have to be put on display in downtown showrooms, the public has not yet demonstrated sufficient interest to go to display rooms at airports. They are uncertain whether or not airplanes can be displayed in conjunction with automobiles.

Taylorcraft will make an effort to hold the price of its planes no higher than the permissable prices of other goods. Prices will be higher than they were before the war, mainly due to wage rates, which cannot be reduced substantially if prosperity prevails.

Market Limited.—The company is not intent on achieving the very lowest price brackets, because its officials believe the bulk of light plane sales will be to persons of some means, over thirty years old. These purchasers will not have time to take protracted lessons; they will prefer to pay for the best in safety, utility, and comfort. Of course, thousands of youngsters will want such planes, but few can afford them. The question whether returning military pilots will want light planes after having flown war planes, even if they could afford them, is an open one.

Company History.—Taylorcraft



War Version of "Taylorcraft" This craft, of 45 horsepower, has a closed engine compartment, improving streamlining, and fuselage splices in the wings which are operated by the pilot to facilitate landing in confined areas. Note the observer jumping the rear fuselage movable range of vision through transparent blister. These L-2 planes are being used in place of observation balloons for spotting enemy positions and directing artillery fire.



"Taylorcraft" Top Executives: Taylorcraft's production, now devoted to the output of highly-restricted military aviation components, will be turned to two amazing models for retail post-war delivery. Behind the program are, left to right, James C. Hart, president; K. W. Tibbitts, vice-president in charge of manufacturing; and A. H. Wendt, vice-president in charge of engineering.

Aviation Corp. was established in September, 1936, by C. C. Taylor, who previously had designed and built the Taylor Cub, which company spokesman says was the first airplane successfully produced and sold for less than \$1500. W. T. Piper became associated with Taylor, and when they separated, Piper formed another company. In the years that followed, the Model A, Model B, and B-13, side-by-side seating, were built and marketed, with horsepower ranging from 40 to 65, in Franklin, Connecticut, and Lycoming engines. Demand from the Civil Pilot Training program in 1941, brought out the Model D tandem trainer, with student in front for better visibility.

Out of the D series came the military liaison L-2 Model for Army and Navy, and the T-3 slider, which had an extended nose section carrying a third man replacing the weight of the engine. Taylorcraft was one of the light plane builders who took their ships and pilots at their own expense, to the Louisiana maneuvers which resulted in convincing the Army of the value of the liaison plane program.

Student Air Reserve

A post-war training plan affirms roles and conversations with permanent training fields to be built at three institutions already to be enrolled in the air reserve, starting in high school, was advocated by the Board of National Aviation Trades Association, Vice-President Reece Turner, president, at a meeting held in Kansas City.

There was discussion of plans for

an NATA system of approved air stations and publication of a manual listing facilities available to the flying public by approved operators. The proposed manual would be distributed by the association to all great country pilots at cost.

Convention in December.—The NATA convention was planned for the first part of December. It will include a large assembly and service show with aircraft distributor and manufacturing associations participating. Exact time and place of the convention will be announced June 1.

Lightplane Trend

Almost every lightplane design that has ever been seriously considered by trustworthy engineers is now in the post-war class of one or either of the personal plane manufacturers.

Most noticeable trend is toward the two-control non-shock construction pioneered by Wirth, Hammond, Gurnee and others years ago. At least a half dozen manufacturers have some version of the type on their programs.

They also have patches as easy to climb into and out of as an automobile, four-seat cruisers for the family or for taxi service or company vehicles, single seaters in the motorcycle class for super economy. At least one has been trying out landing wheels for cross-wind landing.

So far no producer has announced a time when he will be ready to offer rotary wing machines or foldable planes to provide flyers.

Gasoline Rationing Conferences Continue

Gasoline for light planes is only a drop in the vast bucket of liquid fuel under control of the Petroleum Administrator for war. Yet hundreds of aviation buffs are being burned up in Washington over the rationing of gas to personal flying and home operations, mainly because the matter is an inter-bureau contest.

In an effort to settle the controversy Charles I. Stanton, Administrator of the Civil Aeronautics Administration, is reported to have written a letter to the War Production Board, requesting that WPA's directive under which the Office of Price Administration is authorized to ration gas to non-scheduled air operators, be amended so that this authority would be transferred to CAA.

Would Eliminate Services.—If Stanton's plan were adopted, it would determine how much fuel is required for all non-scheduled operations and would certify the amount to PAW for allocation. This would have little effect on legitimate flying but would stop diversion of aviation gasoline to automobile owners and it would ground the weekend joyriders who are regarded as the chief cause of the trouble.

Legitimate Flying.—Gas for non-scheduled flying is now obtained on coupons from local retail dealers, who have no authority to limit distribution. The system proposed by CAA would take the issuing of coupons out of the picture. The required allocation of fuel would go to each airport. It would be up to the fuel distributor to see that none of it went into automobiles. The distributor would not have authority to refuse gasoline to any airplane operator, but the CAA local inspector could forbid jorjoring. The government still regards the maintenance of ships on the part of all categories of pilots, though getting in hours in the air, as legitimate flying.

OPA Holds Full Control.—Whether CAA would get the rationing authority away from OPA was questionable at the last week. Some observers were optimistic, but they admitted that any step of many high officials could step in and change the picture. OPA, of course, regards such a split-off of ration power as a precedent which other special groups might want to follow.

RCAF Group Forms Private Flying Unit

Light Phase Air Service Inc., organized to operate fields and feeder routes in Canada.

A group of Royal Canadian Air Force personnel has formed Light Phase Air Service Inc., to operate fields for private flying and feeder routes in Canada. The company, capitalized at \$1,000,000, already has obtained options for sites at Salisbury, Ont., the Muskoka region of Ontario and elsewhere in Northern Ontario.

Two of the organizing groups already have been released from the RCAF and will carry on the preliminary functions of the business. The others, spurred on by the aim of owning their own business, will become active in operations as they discharge. The group has decided to build a chain of small airports, all light planes, provide field, hangar, hotel and service accommodation.

Veterans Hold Control—Capital is being supplied by the veterans and by business interests, with the veterans holding majority stock. Veterans joining the company will be required to own shares in order that each will feel the organization is his own business, the backers say.

The field already planned at Salisbury will have a country-club atmosphere. There will be two half-surfaced runways, each 3,000 feet long and 150 feet wide, a grass field for "instructional" purposes, 2,500 feet long and 1,350 feet wide. Buildings are to be of ultra-modern design, and the hotel accommodations are to include dining floors, bars and other recreational facilities for the leisure private flyer.

State Air Marking

Thousands of roof markings which were defaced when the war started must be replaced if private flyers are to have as many identification aids as in pre-war days.

One of the first campaigns to remove markings is being launched by the State wing of Civil Air Patrol, which hopes to mark every town in the state.

Post Construction—The wing also went on record at its recent state-wide meeting that the first need with respect to airports, "both now and in the immediate post-war period, is for ordinary, unobstruc-

ted and fields suited to training the many student pilots who must learn to fly before there can be a maximum mass market for airplanes."

Such details are "comparatively unimportant and make possible the conservation of public money for airfields until the time when more is known about the airplane of the future, both as to type and quantity."

ACCA Group Maps Airpark Program

The Personal Aircraft Committee of the Aeronautical Chamber of Commerce met this week in Washington to organize a program for the promotion of the construction of airports, airparks, flightways and air harbors.

Small Fields—The committee plans to emphasize airparks, flightways and air harbors as against large, expensive airports and feels that the utility of personal aircraft can best be promoted in that way.

John Morgan, manager of the Chamber's personal aircraft department, has been surveying the industry for plans which will be incorporated in the Chamber's program.

Acker Named

Stedham Acker, manager of Birmingham Municipal Airport and nationally known air carnival manager, has been named aviation consultant for Oklahoma City, to direct the management of the city's

airports, and serve as executive officer of a newly established seven-man aviation committee.

Flight Strip Excess Opposed by Stanton

Boeing plans to blanket the country with flight strips for use by private pilots, Charles I. Stanton, Civil Aeronautics Administrator, speaking at Oklahoma City, characterized this type of landing area as a "mass expenditure of money in the name of aiding aviation."

Fewer Small Ports—To be really useful, Stanton said, such strips should be near a community and equipped with refueling and other facilities required by the private pilot—actually a small airport.

He pointed out that the average post-war pilot will land to refuel, spend the night, or get a meal, and an airfield is located flight strip, with no additional facilities, would fulfill none of this flyer's needs.

NAA Backs Program

Furthering its new national program to place greater emphasis on private flying, the National Aeronautic Association has announced that leaders in private flying are to receive plaques on its national contest.

Such representation is viewed as an important step in preparation for NAA's post-war private flying plans and a recognition of the place of the private pilot after the war.

1470 Surplus Training Planes Sold

Latest reports on sale of surplus training planes by the Civil Aeronautics Administration show 3169 lots have been received, 582 have been rejected, and 1470 planes have been sold. CAA is selling the planes because the War Training Service, which was giving initial courses to pilot students entering the military air forces, is being discontinued. Army and Navy's blocking of orders is now regarded as sufficient to finish the war.

Nearly all planes used by War Training Service were on loan from the Defense Plant Corp., a part of the Reconstruction Finance Corp., which purchased them under a reorganization order

last year. Total DPC planes in stock and all are to be sold. CAA says the cross-country type planes have been most in demand and they are nearly all gone. Second in favor are the elementary types, which are selling freely.

The secondary types are not so popular. They are desired for aerobatics, are open to the weather, and some are heavy on fuel consumption. These planes are selling at comparatively low prices. There were about 300 of them in all; no record was immediately available to show how many remain unsold. CAA has located no Army liaison planes for sale.

There is no shortage of

DZUS' FASTENERS



We can produce fasteners to meet your requirements

More of Dzus our business has always been to make the best fastener in the world. Long before the war, that was true. The Dzus Fastener was designed to meet a pressing need in the aircraft industry, and ever the years it has proven its worth by keeping pace with new developments. The Dzus is no longer an experiment, but a time-tested product. Relentless research to meet the ever more exacting requirements has developed The Dzus—so that it has literally grown up with the aircraft industry.

Dzus production has been continuously stepped up to meet the industry's requirements. No shortage. No delay. Write today, and let us know your requirements.



Dzus—the most widely used fastener in the aviation industry. Only 1/8 turn to lock or unlock.



Flush head type showing side view



End view showing screw using string

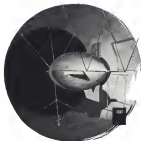
Dzus—the positive-action fastener for all airplanes.

Trail Blazing in the Skies

PIONEERING NEW METHODS

HOW GOODYEAR AIRCRAFT CORPORATION SERVES THE AIRCRAFT INDUSTRY

1. By constructing subscale models to manufacturer's specifications
2. By designing parts for all types of airplanes.
3. By re-engineering parts for quantity production.
4. By building complete airplanes and airships.
5. By extending Goodyear Research facilities to aid the solution of any design or engineering problem.



GUST EFFECTS ON AIRSHIPS were extensively studied and tested by Goodyear and the Navy long before their importance in building heavier-than-air craft became evident. Special wind tunnel equipment was initiated to simulate, upon scale-model airships, the aerodynamic forces created by gusts of varying intensity. These tests provided the basis for computing stresses resulting from gust disturbances on ships in flight. This long and tedious research contributed importantly to present-day knowledge of the effects of atmospheric disturbances on aircraft — increasingly important today as larger airplanes are being built. This is another example of the breadth of Goodyear's background in aircraft development.

BUILDING PROVEN AIRCRAFT PARTS



THE FAR-RANGING MARTIN PBM-3 is another of America's dependable planes built in part by Goodyear Aircraft. Large numbers of these long-distance patrol bombers now in service are equipped with ailerons, flaps and empennages fabricated by Goodyear. In building components for the PBM-3 and other famous aircraft Goodyear has the advantage of its long experience and extensive research in all branches of aeronautics — a background that goes back to the very early days of aeronautics. This time-proven skill is further attested by Goodyear's standard record in building complete aircraft, including both the superb Corsair fighter and naval patrol airships.

BUY
WAR BONDS
BUY
FOR KEEPS



BATTLE-READY...



In the early dawn along an English street roll the day's newly arrived Thunderbolts. Tear off the "mappings," condition them for flight—and they're battle-ready! For changes and improvements to meet the Army's latest fighting techniques were built into them as they rolled along the Republic assembly line.

All such alterations in design and equipment are hard to make. The re-design or production of even a small element in the airplane may sometimes affect the design of a whole major section. And to build such changes into the plane without halting production poses the severe problem of all.

Republic anticipated this critical problem. It was determined that no change in battle tactics would ever find the Thunderbolt unready. Republic accordingly created

a new kind of production system in which high speed was combined with extreme flexibility in assembly methods. When something new is to be added to the Thunderbolt, or a strategic change is to be made, the production line doesn't stop for the changes. It simply *alters* them! The line keeps moving!

There is nothing easy about maintaining a production system which is at once fast and flexible. It only *seems* easy. But it *does* deliver Thunderbolts in quantity, and on time, to all theaters of this war, equipped and battle-ready to meet the latest tactical requirements. Republic Aviation Corporation, Farmingdale, Long Island, New York, and Eastwold, Indiana.

Republic flies in war power to fight in peace



REPUBLIC AVIATION

CORPORATION

Specialists in High-speed, High-altitude Aircraft

died the last air mail between the U. S. and Peru. He sailed in disguise the airport at Brownsville, Texas, key base for Pan American's operations from the West Coast through to Mexico and Central America.

Two Pan American Airways officials from South America recently flew to this country. Antonio Zaldano, executive in Rio de Janeiro, Brazil, spent two weeks in New York. Alvaro C. Rocha from the Buenos Aires office was also in this country.

William C. Hall has been appointed assistant technical director of Jardscoff Aviation Corp. Before joining Jardscoff last year he served as aviation adviser for William H. Woe & Co., and from 1946 to 1949 was manager of the Jersey City airport.

Glenn W. Deane is new general manager of Effelair, Chicago. Effelair, Inc., manufacturer aircraft parts and a wide range of maintenance bases and accessories. Deane has been with Republic Aviation Corp., and prior to this connection was an industrial consulting engineer.



Condy E. S. Quisenberry, Jr., USN, has assumed duties as director of the photography division, Navy Bureau of Aeronautics, having relieved Capt. L. A. Pope, USN, detached.

Lawrence E. Evans, USN, has reported for duty in the aviation division of Marine Corps headquarters.

Jack Davis, operations agent in the Delta Air Lines New Orleans office, has been transferred to the public relations department in Atlanta. Previously a first-line writer and artist, she succeeds Betty Alford, who is going into Red Cross foreign service.

W. Robert England (photo), office manager and traffic representative for Northwest Airlines at Seattle, has been named district traffic manager at Spokane, succeeding Alex R. Reid. Reid has become assistant traffic manager at Chicago after two and a half years at Spokane. England was graduated from the Boeing School of Aeronautics before joining NWA in supervision of field traffic and reservations at Seattle.



Klaus G. Stueben R. Barker has been named Materiel Command representative for the Douglas plants at Santa Monica, Long Beach and Inglewood. He was Materiel Command representative at North American Aviation before he replaced Carl



VISIT CONTINENTAL MODIFICATION CENTER:

May Gen. Charles E. Brehm (seated from left) commanding general of the Materiel Command at Wright Field, and Brig. Gen. Roy G. Harner, commanding the Midwestern Procurement District of the Materiel Command, Wichita, recently inspected Continental Air Lines' heavy bomber modification center in Denver. While there, they conferred with Stanley R. Skatko (left) general manager, and Terrell C. Driskwater, executive vice-president of Continental.

Doris Langford of United Air Lines' Chicago office has qualified for her master's rating through the Civil Aeronautics Administration. She has 545 flying hours which she has accumulated during her nine years with United. She operates a Lockheed aircraft for the airline.



William Christopher Robinson, president of National Electric Products Corp., has been elected a member of the board of directors of Wright-Patterson Airfield and Manufacturing Co. Wright-Patterson is a subsidiary of Gen. M. Gable, its field representative for the district's southwestern district, with headquarters in St. Louis.

Rae G. Murray, Civil Aeronautics Inspector in the Canal Zone, has reported in this country from Panama City.

Condy Mac Substantia, USN, has assumed new duties with the Supply Section, Naval Air Transport Service.

A. W. Morgan has become tactical superintendent at Vultee Field Division of Consolidated Vultee Aircraft Corp.

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Arnold's Program Shifts Emphasis To Long Range Fighters, Bombers

Developments indicate reduction in number of combat types with consequent tapering of output on some present models and increases in others.

By SCOTT HERSHEY

In light of current developments, General Arnold's recent statement that he would like to see a reduction of the number of combat types of aircraft to a minimum has more than usual significance in connection with the forecast made here last week of impending changes in aircraft production.

The Army's program will see increased emphasis now on long-range fighter and bomber types with a corresponding trimming of the output of some present aircraft models. This reduction in production of some aircraft is not expected to result in any substantial differences either in schedules or in aircraft plant employment before early next year, but definite reductions are on the way.

Escort Fighters.—The immediate result will be renewed competition on long-range escort fighters and the heaviest bombers together

with concentration on new secret types still on the restricted list both either in or approaching quantity production.

It is probable that light and medium bombers also will be tapered off in favor of new types now ready which combine combat plane functions which fit into new tactical operations. In this connection, it should be recalled that Gen. Arnold termed the B-17 and the B-24 the last of the great bombers.

Built B-28 Production.—Another straw in the wind is that North American is going to cease production of Mitchell B-25 medium bombers at its Inglewood, Calif., plant the first part of July and concentrate on the output of the P-51 Mustang, highly successful long range fighter much in demand, as is Lockheed's P-38 Lightning.

The B-28 will be built at the

Kansas City plant and it appears that the output will be replaced by the next part. The B-28 Mustang, too, despite its great success in the European theater, is being tapered off. The trimming on the output of our two medium bombers does not mean we will be left without aircraft in that general category, but rather that they fall into the general reduction program.

Indication of Trend.—North American's concentration on the P-51 at the expense of their B-25 is indicative of the trend of the entire program.

Navy's outright cancellation of Brewster's contract for production of Corsair fighters, after announcing a general cutback in fighter output for 1944, halting production of the A-26, and leveling off at Bell Aircraft on production of its new fighter plane, successor to the P-39 Airacobra, are all part of the same pattern and indicative of the change in production emphasis.

Output of new heavy bombers is being stressed, as indicated by the fact that Boeing is concentrating on the B-29 Superfortress—a program in which other companies are joining—while the B-17 Flying Fortress will be made only by Douglas and Lockheed. There are indications, in addition, that the output of our current heavy bombers may be trimmed to almost a replacement basis in favor of still heavier types.

Replacement.—In some plants, production of current types will be



NASH-KELVINATOR'S 100,000th PROPELLER

Company officials and Army officers saw a milestone passed when this Liberator was fitted with the 100,000th Hamilton propeller assembly made by Nash-Kelvinator. Left to right are A. M. Knack, Ford official, Col. Alfred M. Johnson, AAF Central Pro-

curement district supervisor, Campbell Wood, general manager, propeller division, Nash-Kelvinator; R. A. DeVore, Nash-Kelvinator vice president, Col. Harry B. Jones, AAF representative at Willow Run, and H. G. Little, Nash-Kelvinator executive.

restricted almost entirely to replacement. A factor, of course, is that up to now, small aircraft, both from combat and other causes, has been considerably less than was expected.

The results of the invasion, of course, qualify plans for the future, but the military has taken time to account all eventualities and as a matter of sound military strategy must prepare its plans entirely on the basis of maximum losses.

Chevrolet Retrofits In 17 Plants

Chevrolet last week was reported re-tooling and re-scheduling facilities in 17 plants for production of the new 18-cylinder Buick and Whitney B-2500 engine. Already in quantity production at the 14-cylinder model, Chevrolet will build a large addition to its Engine Plant No. 1 in Tonawanda, N. Y., and both engines will be assembled in the enlarged plant. A complete new layout of equipment is required, since parts of the two engines are not interchangeable. The new building will be completed in September.

Ickes Offers Bill On Plant Disposal

Monroe, if passed, would place all U.S.-built aircraft factories in his hands for ultimate disposition.

Secretary of the Interior Ickes is making a bid for control of all surplus government real property—which if approved by Congress would place all aircraft plants built by the Government in his hands for ultimate disposition.

Ickes submitted a proposed bill to the War Contracts Subcommittee of the Senate Committee on Military Affairs, and it is now under study by the members, Senator Murray, chairman, and Senators Truman and Newcomb. Committee members and that, so far, no hearings had been contemplated—that the subcommittee had been given copies of the proposed legislation and permissibly was studying it.

Terms.—Under terms of the proposal, the Interior Department would take control of surplus war plants, land and improvements, as they are certified as surplus by agencies engaged in war produc-

tion. It also would vest control of strategic materials in stockpiles in the Interior Department.

Ickes suggested that property would be classified by the Interior Department, transferred to government agencies if they wanted it, or retained under control of the Interior Department if it is determined "on the basis of certain factors" that retention is desirable.

Sale.—The bill would permit sale of property publicly or by negotiation, with former owners given preference in sale or lease. Public agencies will cooperatively be given second choice.

P-47 Production

Production of Republic P-47 Thunderbolt fighters at the Evansville (Ind.) plant is averaging 350 a month or better, data released in connection with the award of an Army-Navy "B" award.

The first Thunderbolt was delivered in December, 1942. Within less than a year, 1,000 had been produced and in the succeeding four months a second thousand had been delivered.

The Thunderbolt also is produced at the Farmingdale (L. I.) plant of Republic Aviation Corp.



Five Thousandth "Flying Fortress." Workers at Boeing plant during a lunch-hour ceremony to witness the roll-out of the 5,000th B-17 produced since Pearl Harbor. Boeing's present facilities will be engaged in output of the new B-28 Superfortress as that pro-



Boeing reaches its peak, with Douglas and Lockheed continuing the B-17 program. The 5,000th B-17 was covered from nose to tail with insignia of employees at the Seattle plant where it was built and the name will remain on the plane when it goes into combat.



"traffic cops" for busy airports...

The problem of controlling flying is not a question of the mechanics of flight but a problem of landing safely...man or thing...on a busy airport. The weather and the amount of traffic are the major factors. Solving these problems required something besides a human airplane...In fact, a super-human "traffic cop" was needed.

The electron vacuum tube is fulfilling this role today. It's the medium through which efficient control centers are bringing planes to port in spite of weather or volume of traffic. Yes, vacuum tubes are extremely important to modern flying...and they are becoming increasingly important as aviation progresses.

Remember! Vacuum tubes "think" too, of course...vacuum tubes maintain communication and vacuum tubes bring the plane safely to earth through fog and storms. Eimac Vacuum Tubes are doing all these things for modern flying. The uniformity, dependability and outstanding performance of these tubes have made them the first choice of the airlines as well as of leading Electronic Engineers throughout the world...first in the new development in electronics.

HEAT-MACULONDA, INC., 879 Lee Metro Ave., SAN BRUNO, CALIF.
 Plans located at: San Bruno, Calif. and Salt Lake City, Utah

Export Agents: FRIGERIO & HANSEN, Inc., 101 N. Franklin St., Chicago, Ill.

Navy May Acquire Brewster Plant

Johnsville, Pa., plant would be used as modification center.

There was conjecture in aviation circles last week that the Navy eventually hopes to make the Johnsville, Pa. plant now operated by Brewster Aeronautical Corp., a permanent adjunct of the Philadelphia Naval Aircraft Factory.

The Navy has been discussing plans to take over the Johnsville plant now that Brewster contracts have been canceled. It is doubtful that the company could operate the plant as well as its original factory at Long Island City. As planned now, the Johnsville plant would be used as a reconstruction or modification center for the planes produced at the Naval Aircraft Factory.

Owned by DPC—The Johnsville facility is owned by Defense Plant Corp. and was built and equipped early in the war under Navy sponsorship at a cost of \$4,500,000. It was leased to Brewster for operations, and represented the bulk of government investment in Brewster facilities, although DPC has spent some other funds at the Long Island City plant for equipment. Contracts for equipping and construction were signed in 1941, commitments being \$5,000,000.

Leading substance to the conjecture that the Navy had taken a long-range view of the Johnsville plant—one of the first of emergency facilities built—was the revelation by the Federal Public Hearing Authority that the Navy had insisted that war housing for Johnsville be at a permanent character, which led to the construction of a \$5,000,000 project termed a model of its kind. FPHIA and the National Housing Agency had permitted building of anything but temporary housing, but that the Navy had held out the possibility of a \$5,000,000 project termed a model of its kind. FPHIA and the National Housing Agency had permitted building of anything but temporary housing, but that the Navy had held out the possibility of a \$5,000,000 project termed a model of its kind.

20 Miles from Philadelphia—The Johnsville plant is ideally situated to be utilized in conjunction with the Naval Aircraft Factory, being approximately 20 miles north of Philadelphia.

The Naval Aircraft Factory is the first government-owned plant built since the war as a "yardstick" to check an industry's cost figures. Testimony before the House Appropriations Committee

Workers Protest

Workers at Brewster Aeronautical Corp. last week were engaged in a series of demonstrations protesting cancellations of Cessna fighter contracts by the Navy.

First of the tactics was a "sit-in," ended after appearance of Richard J. Frankelstein before a congressional committee and dispatch of the letter from the UAW-CIO to the President protesting the cancellations. The President implemented action already taken to give Brewster whatever advantages would be available. In the course of the "sit-in," a group of workers marched to the New York City Hall in a demonstration. When the "sit-in" was ended by order of national union leaders, a picket line was thrown around the Long Island City plant.

Meanwhile, representatives of 17 top-priority war plants in the New York area were seeking to reverse the Brewster workers. Frankelstein, however, had told workers they would be paid 60 or 70 cents an hour against the \$1.50 an hour at Brewster.

Protested not recently, however, that Cessna built at the Philadelphia plant cost \$50,000 more than the same type turned out by Consolidated Vultee at San Diego and New Orleans.

Moreover, the plant failed by 50 percent to meet its Cessna schedule. The factory, however, has not been a high-capacity producer because of low morale. Addition of the Johnsville plant to its facilities would enable a considerable stepping up of production at the Naval Aircraft Factory and would enable higher peacetime production rates in the government facility.

Canada May Produce More British Planes

The British aircraft industry wants Canadian plane plants to produce up to 30 percent of the RAF's peacetime needs to permit the Canadian keep in touch with British types and development rather than becoming entirely patterned on United States design and technique.

This view of the British attitude toward Canadian manufacture was reported in a recent issue of the Toronto *Financial Post* by E. R. Wilson, who said he found little encouragement for the oft-reported possibility of Great Britain's rearing her aircraft design and development wings in Canada after the war. While this was considered a logical view from a security angle, it was not considered a likely move.

One manufacturer, deHavilland, with production capacity in Canada, is said to feel that there should be more encouragement of Canadian-designed aircraft, but others felt that Canada should not do any design or development work, leaving that to parent British companies.

14,000 at Republic To Get 37.8% Bonus

Payroll for four weeks ended May 12 is eighth since WPA approval of incentive plan.

Twelve thousand employees of Republic Aviation Corp.'s Farmingdale plant will receive for the four weeks ended May 12 a bonus of 37.8 percent. It will be the eighth payment since approval of Republic's incentive plan by the War Labor Board last October.

Both shop and office workers share in the payments and Alfred Marchey, president, says plant efficiency has so improved that in making the quota delivered of 47 Thunderbolts to the AAF during this period, Republic workers saved 1,850,000 man-hours, compared with doing the same job in the first four weeks' bonus period.

Work Week Reduced—The company recently reduced its work week for factory workers from 36 to 34 hours and the May bonus more than offsets the individual worker's reduction in pay. For example, a Republic worker whose base pay was \$1 an hour on a 36-hour week received \$67 a week or \$248 for four weeks. For 34 hours of work his base pay plus overtime is now \$68.50 a week or \$274 for four weeks. Offsetting this reduction of \$26, his May bonus will amount to \$69.96. This is a gain over the April bonus of 16 percent, to give him about \$15 more for 16 hours' less work.

Marchey says Republic's present schedule, now at peak levels, are not expected to be changed during 1944.

A-20 Cancellation

Adds to Labor Upset

Douglas cutback from 8,000 more workers on West Coast plants.

Cancellation of Douglas' A-20 contracts, formally announced last week, and the resulting necessity for trimming 8,000 workers from the rolls, injected a new factor into the troubled and spotty labor situation in West Coast plants. In brief, the situation is this:

► Douglas expects turnover to help in the employment cut, taking up to 75 percent of the 8,000.

► Consolidated Vultee at San Diego could use as extra thousand employees.

► Northrup needs 2,000 additional employees and officials of the company say "war need is desperate."

► Lockheed will require 2,000 per month for the next several months both for production and for skilled output in trades such as joiner, etc.

North American reports that it has to labor shortage and has halted all newpaper and main advertisements for new workers. It is indicated some cuts in manpower may be necessary as production of the B-25 at Los Angeles ends, and is moved to Kansas City so that Mustang production at Los Angeles can be stepped up.



LANCASTER ASSEMBLY LINE

More and more Lancaster bombers are being turned out for Air Marshal Morris, chief of Britain's bomber command for the great air offensive now being waged in collaboration with the USAF. There is an assembly line at one of the Ministry of Aircraft Production's Lancaster factories.

Douglas expects that the plant's normal turnover rate, with new hire, will make it impossible to reduce formal lay-off notices to 2,500 at the outside.

► **Buildup**—An executive bulletin, signed by Donald Douglas, president of Douglas, posted throughout the Santa Monica and branch plants on May 31, announced formally the cancellation that had been a common rumor on the production floor for more than a week.

West Coast factories will switch abruptly for the effect the Douglas cancellation has upon their intense "stay on the job" campaign. Some are concerned over the possibility that Douglas layoffs will start a quit-work wave and exodus of skilled workers into lower paid civilian jobs that offer post-war job security.

► **Priorities**—It is doubted that the Douglas layoffs will benefit the other Southern California aircraft plants in dire need of additional workers. For one thing, priorities in employment are being given other war industries such as high ceiling gas plant construction.

Consolidated officials last week feared that the company would miss meeting production quotas for the first time in 18 months because of absenteeism, but that now has dropped to a little over 5 percent.

In connection with the A-20

cancellation at Douglas, it was disclosed that production schedules for the four-engine C-54 transport have been stepped up.

Republic Reports

On Salaries, Income

Republic Aviation Corp. paid Ralph S. Darnon, president, a salary of \$40,000 plus \$300 director's fees for 1943, according to the report to the Securities and Exchange Commission.

Darnon resigned Aug. 31, 1943, and as director Mar. 13, 1944, being succeeded by Alfred Marchew, who received \$18,123 as president and \$240 director's fees in 1943. C. Earl Miller, vice-president and director, got \$24,000, plus \$450 director's fees, the report showed.

► **Officers' Salaries**—Salaries paid to eight officers of the company, including the above, totaled \$138,580. The law firm of Hendley, Platt and Walker, of which Livingston Platt and Blouise N. Taylor are Republic directors, was paid \$25,000 legal fees. Salaries include bonuses totaling \$28,000.

Company reports net operating profit of \$22,487,308, plus \$142,654 other income, making the balance of \$22,630,000 before federal taxes. Normal tax surtax amounted to \$174,889 and excess profits taxes \$15,440,899, leaving balance of \$4,020,854.

► **Earnings for Year**—After giving effect to a post-war refund of federal excess profits tax in the amount of \$1,404,000, profit before provision for income taxes in 1943 was \$3,289,884. Net for the year, after allowing \$1,000,000 for indeterminate costs, was \$4,889,884. After appropriating \$1,404,000 to post-war reserve, balance is earned surplus totaled \$3,325,884.

Financial Reports

► **Food Molar Co.** showed net profit of \$45,525,000 in addition to \$40,121,184 added to its reserves in 1943, a balance sheet filed with the Massachusetts Commissioner of Corporations indicates. The profit is in addition to any dividends distributed on the closely held 3,452,900 shares of 48 per cent value capital stock. "Word part of the profit came from the production of B-24 Liberator bombers of Pratt & Whitney engines is not indicated in the report.

WORTHY WEAPON

America's fighter pilots using Allison-powered planes are downing the enemy on every battle front. * Allison engines by superb performance have

proved their ability to take punishment, their smoothness to lessen pilot fatigue, their economy to provide long range. * These engines—worthy weapons today—will contribute to the comfort and safety of the planes you will ride in tomorrow.



POWERED BY ALLISON:
P-51—Lightning
P-40—Warrior
P-47—Thunderbolt
A-1H and B-24—Liberator

More than 20,000 Allison engines have been built for the above planes of the U. S. Army Air Forces.

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Allison
DIVISION OF
GENERAL MOTORS
Indianapolis, Indiana

BUY WAR BONDS
DO MORE THAN BEFORE

Drawn Under Allision—GENERAL MOTORS SHOWN IN THE AIR—NOT Towed



How our Dodo won her wings . . .

She's as earth bound as the wingless dodo bird, yet she broods plenty of headaches for the enemy. Our dodo won her wings by hatching high-octane horsepower for bombers like this.



TO "FLIGHT-TEST" new aviation fuels in the laboratory, Standard's California research engineers use that special test equipment. Its most important feature is a complete single-cylinder assembly taken from a regular aircraft engine. A cylinder from any type or model of engine may be used.



THOUGH OUR DODO never leaves the ground, in laboratory "flight" simulate conditions of actual service. These include full-power take-off, climb, and cruise throttle settings that produce greater power output than required in the air. From such tests, flight performance of fuels can be predicted.



BEFORE A NEW FUEL is okayed for flight, the cylinder assembly in which it was tested is examined minutely. Any deposit on valves, any corrosion or other sign of instability sends the fuel back to have the wrinkles ironed out. Standard gasoline must be performance-perfect before it goes aloft.



MANY NEW FUELS have won their wings on Standard's "dodo." Many more have flunked that final test in the laboratory grid. And we're proud, perhaps, of the failures . . . because they line up how really good aviation gasoline must be before it's good enough to win Standard's "wings."



STANDARD OF CALIFORNIA

TRANSPORT

Intrastate Air Developments Rouse ATA and Federal Circles

Concern shown over growing inclination of states to formulate their own policies of regulation and certification.

By MERLIN MICKEL

Concern is growing in federal aviation circles and the Air Transport Association over intrastate air developments, particularly as they are involved in unsettled state aviation policies.

Intrastate operations have an eye to expansion into the interstate field, judging from applications on file with the Civil Aeronautics Board. This applies to prospective operators as well as those already providing service.

State policies—But the immediate concern lies in the apparently growing inclination of the states to formulate their own policies of regulation and certification.

CAB people list Michigan, Wisconsin, Alabama, Texas and Colorado as a few of the states so inclined. Colorado recently held hearings on a proposed draft of regulations that was criticized as duplicating or conflicting with federal regulations. The Colorado Public Utilities Commission, however, has given time for the filing of briefs and promised further hearing, and there is little doubt that changes will be made.

Denver Meeting—The meeting at Denver was the first of its kind in which the CAB has appeared formally, though representatives of the Board's legal staff have attended similar conferences. George Nott, general counsel, made the Colorado trip, and presented the regulations as drawn.

ATA feels that any state regulation as laid in a top notch setup. This airline organization, an ardent supporter of federal jurisdiction over all U. S. aviation, argues that the need for uniform safety regulations can not be questioned, and that it is obvious that air traffic rules must be uniform.

U. S. Waives Developments — Generally, there is a question as to just where the line may be drawn on the effort warranted to avoid interstate complications. No doubt

the federal government, despite CAB's inclination to state policy on this matter, will keep a watchful eye on intrastate operations to make sure they do not infringe on interstate commerce. In such cases, injunctive action could be expected.

There is much doubt, in fact, that an intrastate operation can remain so for long. It is pointed out that air travel shows its main advantage in long haul service, and that sooner or later a passenger or package eventually intrastate actually will be found to be in interstate commerce.

Feeder Lines—Another problem lies in the relationship between intrastate and feeder lines. Many applications have filed for routes in the latter category and the question of what will happen if the CAB certifies them and they are

in the same area as the intrastate operation is yet to be solved. A partial answer, however, lies in the fact that here again is an overlapping in applications, with many filed for both types of route by the same applicant.

There is also the federal policy against the entry of foreign carriers into air transportation. Some are wondering whether the states will follow this policy. Michigan has granted a post-war helicopter certificate to a bus company subsidiary.

Integration—Some point out that the federal government has spent a lot of time and money building up a national air transport system, and still is doing so. Those persons argue that each independent intrastate operation, and each state regulation, will have its effect on that system unless it is carefully integrated with it. And such integration, they contend, can best be handled by Washington.

Certain it is that the interstate operation will protest to the utmost any state rulings that give advantage to lines within the states. The former have been paid to considerable expense by federal regulation.

Some safety developments come along. Unless the states have similar requirements for intrastate services, they may be at competitive and economic disadvantage.

Data Incomplete—Then, coupled with the fact that information on



SKYTRAINS CARRY SUPPLIES OUT, CASUALTIES BACK: Operating under the South Pacific Canaday Air Transport, these many MD's (Douglas Skytrains) fly to the front over regular routes, carrying supplies as they go out, and bringing back wounded.

intrastate developments is resisted and incomplete, are the factors behind the expenses of concern by Federal and ATA officials. The fact that the route is an interest has been deployed in such incidents as the Colorado hearing.

The disputed regulations there were drawn, it is reported, after R. M. Drumm received a state aircraft operating schedule between Denver and Durango via Alamosa and Pueblo Drumm, who operates a truck line from Durango and is a private pilot, is co-owner of the line with Ralph Drumm.

Operations Begun—Under the name Colorado Air Lines, Inc., the line has started operation, but not without difficulty. The opening flight was due a month ago, but the single-engine plane was late and had bought and was having reconditioned was not delivered in time, so the first flight was carried out with a borrowed plane.

Colorado Air Lines is prevented from carrying purely local passengers between Pueblo and Denver as Bonnell and Continental serve this segment. Now reported operating three single-engine planes, it has an application before CAB for a route to Las Angeles.

Permit Granted—Colorado's PUC also has granted permission to Mountain State Aviation, Inc., of Denver, to operate an intrastate route which may begin operations in July. Its routes would cross the Continental Divide four times, one segment being between Durango and Alamosa. This line plans to use single-engine aircraft.

May, Fred Williams, general manager, who was executive officer of a fighter group before his retirement in January, comments that "we are simply an intrastate operation. We feel that there's a job for feeder airlines and a job for major airlines. We're not in competition with the major airlines and hope they'll let us alone to do our job."

New Service Projected—The PUC is that state also has given Hanes & Hanes Flying Service, Inc., of Fort Collins, until June 30 to start daily schedules between Denver and other Colorado cities. H. S. Hanes, the company's chairman, has been quoted as saying that "We are starting an era of aerial pioneering. Doubtless a comprehensive and satisfactory service will evolve, including both intrastate and interstate flying, when the many plans now on paper become realities."

Intrastate Airlines

While Colorado Public Utilities Commission considers and a proposed draft of air rules and regulations, these developments arise in other parts of the country.

Michigan State Board of Aeronautics disclosed that three intrastate airlines were expected to start operations sometime throughout the lower peninsula about June 1. They are Francis Airways of Lansing, the South Flyer Service of Flint, and Northern Skyways Service at Grand Rapids. Because a recent report legislative session failed to take up the matter of jurisdiction over intrastate aviation, certification of the lines by the state board was not a necessary step.

Wisconsin's Secretary of State, Fred R. Zimmerman, has granted an incorporation certificate to Wisconsin Central Airlines, which has applied for state and Federal permission to operate a commercial air service between Milwaukee, Wis., and Chicago.

Minnesota's State Supreme Court received the question of constitutionality of the Metropolitan Airports Commission, created by the 1945 state legislature. Civil arguments were made in a taxpayer's suit.

CAB Gives Reasons For Overweight Ban

On request by the Aeronautical Chamber of Commerce, the Civil Aeronautics Board has specified its reasons for disapproving the proposed increase of take-off and landing weights.

The chief argument for raising the limits was shortage of planes and greatly increased demands for passenger and cargo service. The Board pointed out that, as plane returns improve, the need for such increases is less important.

Safety Margin—Airline pilots contended that increasing the allowable weights for old equipment would greatly diminish the safety margin. The Board was unwilling to create a "psychological barrier in the cockpit" by increasing the weights over pilots' protests.

The Board also stressed the fact that should the weight limits be raised over the protests of the airlines, the resulting loss in the minds of the traveling public might develop.

Denver-Los Angeles Route Debate Heated

United, Western, TWA and Continental present arguments before CAB.

By DANIEL S. WENTZ II

The question whether United Air Lines should be certificated for a Denver-Los Angeles route, is a Civil Aeronautics Board examiner recommended, was the chief consideration last week as the Board heard oral arguments by the four applicants.

United, Western Air Lines, Transcontinental & Western Air, and Continental Air Lines, the four participants, agreed as the necessity for the route, which would close one of the largest gaps remaining in the national air transport pattern.

Great Circle Route—United contends the route is a natural portion of a Great Circle route connecting New York, Chicago and Los Angeles. While it would give United a 3,000-mile route, 38 miles shorter than TWA's, United's position is that no serious damage would result to TWA because the latter, with the Coastlines, it plans to use, will avoid maintain the fastest coast-to-coast schedule.

Continental for Western pressed her argument on the desirability of lifting its line from the "feed" classification by giving it access to transcontinental passengers at Denver as well as at Salt Lake City, which it now serves.

Agreement—Before the war, Western, under interchange agreement with United, carried traffic from Salt Lake City directly to Los Angeles. Denver, Western argued, would be a more natural interchange point than would the Utah capital. United, however, expressed doubt as to its willingness to undertake another interchange agreement with Western, should the latter be certificated into Denver.

Western contends that award of the route to Continental would expose that company at Western's expense and argued that to give the route to any carrier other than Western would divert so much traffic from Western's most lucrative route, AM 13 from San Diego and Los Angeles to Salt Lake City, that Western would be forced back into the "feed" classification.

Local Traffic—Continental, on the other hand, looks at Denver-

Los Angeles traffic as local in character, and holds that the route should go to a regional carrier. TWA, which claims the shortest, fastest, transcontinental service, contended that to give the route to United would be a serious threat to TWA's position.

Among those who attended the arguments were Presidents W. A. Patterson of United and William A. Candler of Western. All members of the Board were present.

OK AA Extension to Tulsa, Oklahoma City

Action, recommended by two CAB members, would put steps on airplane route-U.S. route.

Recommendations which, if adopted, will place Tulsa and Oklahoma City on an alternate transcontinental air route, have been made by two Civil Aeronautics Board examiners after recent hearings embracing the area from Atlanta, Ga., to El Paso, Tex. Neither city is now a stop for transcontinental flights.

Examiners Gordon M. Bell and Barnes Fredrickson found that American Airlines should be permitted to extend AM 4 and AM 23, which together form its coast-to-coast flight path, to include the two Oklahoma cities. The first would be extended from El Paso, Tex., to Tulsa via Lubbock and Wichita Falls, Tex., and Oklahoma City, and the second from Little Rock to Oklahoma City via Fort Smith, Ark., and Muskogee and Tulsa.

Delta Extension—In the same report, recommendation was made that Delta Air Lines be allowed to extend AM 34 from Birmingham, Ala., to Memphis, Tenn., via Tupelo, Miss., although the examiners advised the Board not to grant Delta's request to go as far as Memphis to Oklahoma City via intermediate points.

They found that public necessity, independent of war conditions, warranted permission to Chicago and Southern to stop at Little Rock, now a stop under temporary authorization, on AM 13, and also recommended that the Board remove Birmingham restrictions on Eastern Air Lines' AM 5. These provisions prevent Eastern from operating local flights between Atlanta and Birmingham or Atlanta and Memphis via Birmingham and would have been intended that the restriction has prevented its integrated operation

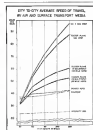
in the territory it is authorized to serve.

Restrictions—Apparently the restriction was first imposed in January, 1944, to protect Delta from diversion of revenue on Atlanta-Birmingham traffic.

It is worthy of note that the examiners, after commenting on Delta's subsequent passenger revenue increase, commented that while the figures reflected revenues "realized during a period of war when revenues accruing to all airlines have skyrocketed, it is not unlikely that these figures may be maintained after the war."

Bonell Application Opposed—"As the Board has stated," they report pointed out, "the end of the present war should see development in the field of air transportation with a widespread increase in volume of both passengers and property carried by air."

Bell and Fredrickson, in their closing recommendation, advocated denial of application by Bonnell Airways for designation of Oklahoma City as intermediate point on AM 15 and extension of that route to Atlanta or a separate route between those points, and a request by Continental Air Lines for a route between Tulsa and Hobbs, N. M., and alternate routes between Tulsa and Memphis.



UNITED CHARTS SHOW SPEED AND COST MARGINS:

These United Air Lines charts show why UAL has not jumped into the feeder line picture with the alacrity that has characterized some other applicants. They reveal that, with 25-minute stops every 50 miles, feeder planes will have an average speed of little more than a private car or train. With stops at half as frequent, the speed would be about 25 m.p.h. faster, averaging approximately 40 m.p.h. And so low is the cost by private car and intercity bus on relatively short hops, such as the feeder operators contemplate, that air costs, even at a 4-cent rate as a distance basis, are substantially higher.

THE COST OF *Tomorrow's Peace*

Today peace-loving Americans are united with thirty-three other nations in a common objective of destruction.

Millions of our fine, young men and women find themselves invading foreign lands in order that their own shores may be spared, and their free way of life preserved.

Their sacrifices will be great. Their job will be well done.

But what of the job they will expect of us when they have finished theirs... the job of turning their hard-won victory into a lasting pattern of peace?

Can we come up to their great expectations? We must realize that this is the last opportunity of our generation. We must do a better job of it than we did in the Twenties and the Thirties.

We have our backs to the wall, and the scars of World War I and a thirteen-year depression still are upon us. The final test of our way of life is at hand!

As we look over our shoulder into the immediate past, we are little to encourage us. But we also see much to make us pause. We see a tremendous fighting machine, created in a matter of months by the miraculous organization of our resources.

We, the largest of the peace-loving nations, have overnight become masters at the business of waging war. Today, as a result of the co-ordination of industry, labor, and government, we are producing for war alone as much as our total normal production for peace.

We have amply demonstrated our ability to harness the vast productive capacity we possess

Why cannot these resources, which we have organized so efficiently for the destruction of life and property, be directed toward the destruction of the causes of war?

May not the patriotic and emotional strength and the unity of action which have been stimulated for the purpose of winning the war be directed, at least equally well, toward the attainment of world peace and international harmony?

If they are not so directed, what lies ahead but another war? And how can America, in a world that is so rapidly shrinking in size, avoid involvement in any of tomorrow's conflicts?

International peace is an ambitious dream and its price is high, but the price of war is even higher. Our world cannot long survive the periodic waste of its human and material resources.

Our country can be the most potent single force in bringing about the international understanding that leads to peace, in developing the unity that will make the most of the ample resources nature has provided everywhere.

There is no unity in selfishness. There can be no unity if any one of the great powers fails to do its part in determining and eliminating from the world the basic causes of aggression.

These basic causes stem from greed and the suppression of opportunity for individual progress, for self-preservation is the first law of nature.

Mussolini's dramatic march on Rome in 1922 was made possible by disillusioned veterans of World War I who could find no jobs and whose future held no promise. Some of Hitler's most

determined followers came from the same ranks.

Men denied the opportunity to make a living, for themselves and for their children, are easy prey to false doctrines and dangerous "isms."

In any realistic appraisal of our domestic problems—economic, labor, racial—it is clear that we can solve them, not by waiting until we reach some utopian accord, but by making a series of compromises. We do this because we know how discord can impair the very roots of private enterprise, self-government, and self-discipline—the essentials of a dynamic democracy.

Similarly, peaceful reconstruction of our world economy depends on the ability of nations to reconcile their differences in a series of working agreements.

If we in the United States want lasting peace and if we want to preserve our democratic way of life, we must take over our full share of the task of initiating these compromise measures. Acknowledging our inescapable responsibility as the greatest economic and military power in the world, we must attempt to insure the free flow of world trade, and develop—with profit for both parties—backward areas abroad as well as at home. And we must do this by making all nations share the responsibility, not by allowing ourselves to be maneuvered into being an international Santa Claus.

With our allies, we will have to see to it that the devastated portions of the world rehabilitate themselves as quickly as possible; that practicable and realistic trade and economic relations between nations are developed; and that the energies and productive capacities of these nations are set free to function in a climate that is favorable to the growth of free enterprise and individual initiative. As the most powerful economic force on earth, we have the most to gain and the most to lose at the peace table, and we must never forget that with our power comes responsibility.

We cannot hope to solve all of the problems of all nations—not even all of our own—but our way can become the way for more of the world's

humanity. Our strength can become the guiding spirit of the smaller nations.

In the development of a sound American foreign policy, let us take care not to attempt to control the destinies of other nations. Let us remember that we must set the example of self-determination of independent, free peoples.

Freedom is essential to international peace; and free competition—whether it be between individuals, between businesses, or between nations—is the mainspring, the synchronizer, and the preserver of freedom. For competition always is synonymous with private enterprise.

We are not a covetous nation. We have no territorial ambitions. Our international commercial aspirations are dominated by the conviction that we have a great stake in world unity and world prosperity. We know that we can no longer live apart from other nations and that we cannot ignore the fundamental elements which affect the well-being of other countries.

Our foreign policy must encompass a world of trade, and help develop it.

We dare not blunder in the execution of that foreign policy if the American way of life is to survive. A democracy resolved upon isolation is doomed in the world of tomorrow.

Let us resolve that out of this devastating catastrophe we shall emerge with fuller understanding and greater determination to build the kind of world which can materialize only if this country has the vision and the will to see it through.

We still are free to decide our own fate—still free to shape our own future. We still are free to preserve the liberty and happiness that has made our country the hope of the world.

James H. McEwen, Jr.

President, McGraw-Hill Publishing Company, Inc.

YOU CAN'T AFFORD TO SHADOWBOX WITH THE PAPER-BOX PROBLEM!

NO. STILL. Or with any other angle of the paper conservation problem. Our boys need every bit of paper and paper board the Army can get to ship their precious (irreplaceable) supplies in. And it's up to you and every other manufacturer to cut and cut and cut again on the use of paper and paper board.

For every time a conveyer sets ash—there's so much more paper and paper board in action. And the supply, as you know, is diminishing.

So your job is to figure every known way, yes, and a few unknown ways, to USE LESS PAPER AND PAPER BOARD.

Don't worry about the public, your public, squawking about your cutting down. The big all-out national drive right now is selling the public on the necessity for paper conservation. They'll be with you.

The green light is yours. Step on it.

If your company and your community have not already started Paper Conservation Committees, why not get them started now yourselves?

USE LESS PAPER BECAUSE

Paper waste has proved excellent for vitamins and ground crews as well as for business.

Paper is used for disposable gun covers and ordnance boxes to protect such equipment while moving between load-ups.

The Army supplies helmets of laminated fiber for non-combat duty in the tropics.

Many essential airplane parts are fabricated of plastic with a paper base.

Army trucks require 10 pounds of paper for wire delivery.

It takes 15 tons of blueprint paper to make a battleship.

USE LESS PAPER THESE WAYS

Review all printed forms periodically for unnecessary duplication; eliminate of waste space; standardization of size, weight, color, grade, elimination of color where possible.

Eliminate certain least useful directions when possible and substitute references on label.

Overweighting, extended or padded letter heads should be eliminated unless they can be justified as a limited paper shortage.

Use and reuse carbon paper consistently.

Consider the possibility of reducing the length and increasing the diameter of tubular products as a means of conserving tubing and saving boxes.

Feeder Airlines Chart Program

Feeder airlines will gain a more powerful voice in post-war aviation with permanent organizations this month as Feeder Airlines Association, its backers believe. Twenty-five charter members are prepared to develop a program activating the policies of the association and adopt a budget for its operations.

Harry R. Stringer, chairman of the FAA organization committee and vice-president of All American Aviation, Inc., has called a meeting in Washington for June 15 and 16 to perfect the organization and elect permanent officers. All office may be opened in Washington.

United Value—While All American Aviation, Inc., has been a member of the Air Transport Association for several years, the company has indicated it has not been satisfied with the ATA's attitude on feeder lines. The new FAA will give the feeder lines a united voice in matters affecting the smaller lines.

While 24 lines or prospective lines are listed as charter members, one of the charter member companies actually represents a merger of 14 additional operations, making a total of approximately 40 operations, among whom are some of the strongest in the field.

Lines Represented—The merged company is Consolidated Airlines, Inc. In addition to Consolidated and All American, Stringer said the following companies would have representation at the permanent organization meeting: Automatic Air Mail Inc., American Relephant Line, Central States Aviation Corp., Clear Ridge Aviation Inc., Coast Aviation Corp., Dune Air Transport Co., Inc., Hawthorne Airways, Hyline Flying Service Inc., Kansas Aviation Co., Land Water Air Service, Mercury Development Corp., Mountain States Aviation Inc., Otis Aviation Corp., Parks Air College, Inc., Racine Flying Service, Inc., Ryan School of Aeronautics, Southern, Inc., Southeastern Air Express, Inc., Southern Aviation Corp., Southwest Airways Co., State Airlines, Inc., Virginia Central Airlines, and West Coast Airlines.

In addition to these, the 14 feeder base operators in Consolidated, some listed as individual companies above, are: R. W. Wagner Airways, Inc., Iowa Airplane Co., Inc., Aircraft Sales Co., Central States Aviation, Inc., Summit Airways, Inc., Springfield Flying Service, Inc., Kras Corp., Mahan's Flying Service, Buffalo Aeronautical Corp., Great Airways Corp., Kansas Aviation Co., P-T Air Service Inc., Lehigh Aircraft Co., and Rescoe Turner Aeronautical Corp.

Consolidated companies have applied for 64 routes totaling 23,723 miles, while the total for all companies represented in the FAA is 149,361 miles of routes either operated or applied for.

(ag before his resignation are: The Hawaiian chain (Docket 691 et al.) Assigned to Examiners Thomas L. Weizen and Lawrence J. Kessler. Acquisition of Civil National Aviation Corp. made by Pan American Airways, Inc. (Docket 1351) Examiner H. Heinrich Spang. **Aerovias Brazil**—Acquisition of Aerovias Brasil S. A. by Brazil Airways by purchase from T. E. Brazil (Dockets 1265 and 1375) has been assigned to Examiner Vincent L. Gungorich.

Examiners Assigned Four Feeder Cases

Assignment of Civil Aeronautics Board examiners to four recently opened regional feeder service cases was announced last week by Chief Examiner C. Edward Lessner.

The addition of a new examiner, James S. Keith, to the CAB staff was also revealed.

Examiners have been detailed to conduct those cases formerly handled by Examiner Albert F. Bittel who resigned June 1.

New Assignments—Oklahoma-Texas case (Docket 127 et al.) Examiners Thomas L. Weizen and James S. Keith.

Florida feeder service case (Docket 429 et al.) Examiner William F. Cluck.

New England regional feeder case (Docket 390 et al.) Examiners Gordon M. Bell and Vincent L. Gungorich.

North Central States case (Docket 415 et al.) Examiner F. Merrill Rablin.

Bittel Cases—The two cases on which Examiner Bittel was working

are: R. W. Wagner Airways, Inc., Iowa Airplane Co., Inc., Aircraft Sales Co., Central States Aviation, Inc., Summit Airways, Inc., Springfield Flying Service, Inc., Kras Corp., Mahan's Flying Service, Buffalo Aeronautical Corp., Great Airways Corp., Kansas Aviation Co., P-T Air Service Inc., Lehigh Aircraft Co., and Rescoe Turner Aeronautical Corp.

Acquisition of Civil National Aviation Corp. made by Pan American Airways, Inc. (Docket 1351) Examiner H. Heinrich Spang.

Aerovias Brazil—Acquisition of Aerovias Brasil S. A. by Brazil Airways by purchase from T. E. Brazil (Dockets 1265 and 1375) has been assigned to Examiner Vincent L. Gungorich.



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India Now and Post-war

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Bank and other references submitted.

Consultative direct too.

THE ASIAN AIR ASSOCIATES
Wavell House, 15 Graham Road - Ballard Estate, Fort, Bombay

Let's All Use Less Paper

This advertisement prepared under the auspices of the War Advertising Council in cooperation with the Office of War Administration and the War Production Board.

Space for this advertisement contributed by AVIATION NEWS

New Survey Sees 1950 Air Traffic 750 Percent Over 1940 Volume

Curtis-Wright study predicts domestic total will reach 897 million ton-miles and world transport increase 2,100 percent to 292.1 million ton-miles, with U.S. share 288.6 million.

Domestic post-war air traffic may reach 897 million ton-miles by 1950—a volume level one-half times greater than 1940 business—while international air transport may expect a 21-fold expansion to 292.1 million ton-miles, with U. S. flag carriers' share estimated at 184.6 million ton-miles. By 1955, foreign air traffic may expand to 666.6 million ton-miles, with U. S. carriers taking 465.3 million ton-miles of business.

To handle this estimated flow of air traffic in 1950, domestic airlines would require 371 airplanes with a total seating capacity of 16,368, as compared with 330 airplanes of 6,590 aggregate seating capacity in 1940. On the foreign routes, U. S. flag carriers would need 161 airplanes with a total seating capacity of 4,880. By 1955, U. S. flag carriers would require a fleet of 276 airplanes of more than 11,000 total seating capacity to handle traffic forecasts.

Survey.—These estimates of air transport business are contained in a survey Air Transportation in the Post-War Period, prepared by B. A. McDonald and J. L. Cove of the Business Research Department of Curtis-Wright Corp. Airplane Division.

Labeling their domestic estimates as "reasonable possibilities," the authors believe 1951 business will consist of 790 million ton-miles of passengers, 116 million ton-miles of cargo, and 67 million ton-miles of mail (assuming no surcharge after the war). The pattern of growth is seen in Table A. In arriving at their estimates of foreign traffic, the authors concede the political uncertainties, but believe "sound policies" will be worked out within and between nations which will allow international air transport to follow a natural course of growth. They assume that foreign landing rights will be secured rapidly enough to

gar traffic growth, while the expansion of first-class air mail traffic is "largely" a matter of "political determination."

Post-War Traffic.—An analysis of international post-war air traffic (U. S. carriers expected to take roughly 60 percent) shows the trend indicated in Table B.

In estimating equipment needs, the Curtis-Wright study assumes that utilization (hours flown per year) will be improved beyond pre-war levels, but will not be up to war-time standards. This would mean average utilization rising between 2,600 and 3,500 hours annually for various types of equipment at different periods. In light of pre-war trends and war-time operating experience, the study assumes a pay-load factor of 75 percent to be generally applicable to future operations, both domestic and international.

Four general types of equipment are listed in the report as follows:

Post-War Transport Types			
	Type of Airplane	Class	Weight
1	Small	Transport	10-15,000
2	Medium	Transport	15-25,000
3	Large	Transport	25-40,000
4	Very Large	Transport	40-100,000

The equipment requirements of

(A) Estimated Domestic Post-War Air Traffic
(Million Ton Miles)

	1940	1945	1950	1955
Passenger (1)	184.6	419.0	811.0	700.0 (245%)
Cargo	11.6	15.0	11.0	67.0 (582%)
Mail	6.8	6.8	6.8	67.0 (985%)
TOTAL	103.0	330	738	834

(1) Passenger miles are computed on the basis of 200 passengers per airplane; (2) cargo miles are computed on the basis of 200 pounds per pound.

(B) Estimated Total U.S.-International Air Traffic
(Million Ton Miles)

Total—All Carriers			
Passenger (1)	Cargo	Mail	Total
1940	11.6	1.0	12.6
1945	15.0	1.0	16.0
1950	11.0	1.0	12.0
1955	67.0	1.0	68.0

(1) Passenger miles are computed on the basis of 200 passengers per airplane.

(C) Estimated Post-War Passenger Requirements
(Domestic)

Number of Flights			
Year	Small Type	Medium Type	Large Type
1940	11	11	11
1945	11	11	11
1950	11	11	11
1955	11	11	11

(D) Estimated Post-War Equipment Requirements
(Domestic)

Number of Flights			
Year	Small Type	Medium Type	Large Type
1940	11	11	11
1945	11	11	11
1950	11	11	11
1955	11	11	11

the domestic airlines to handle estimated 1950 post-war traffic call for 371 airplanes of the types shown in Table C.

In the foreign routes, the equipment chart for United States flag carriers shows the trend indicated

in Table D. In an analysis of the cost of operation, the survey presents a comparison of "Economic Rate Basis" versus operations along with estimated rates for similar operations, as follows:

Estimated Rate Basis and Rates
For Post-War Air Transport Operations

Classification	Period	Rate Basis (1)	Estimated Rate (2)	Estimated Year
Domestic Passenger	Typical	1.0-1.5 per mile	1.50	1940
Domestic Cargo	Typical	1.0-1.5 per mile	1.50	1940
Domestic Mail	Typical	1.0-1.5 per mile	1.50	1940
International Passenger	Typical	1.0-1.5 per mile	1.50	1940
International Cargo	Typical	1.0-1.5 per mile	1.50	1940
International Mail	Typical	1.0-1.5 per mile	1.50	1940

(1) Domestic and secondary post-war profits.
(2) Cargo rate basis is based on estimated passenger-cargo plane operation; general domestic rate (passenger and cargo) is based on estimated passenger-cargo plane operation; general domestic rate (passenger and cargo) is based on estimated passenger-cargo plane operation.

The survey points out that domestic passenger rates should tend to follow the rate basis figures fairly closely, since domestic operations were the source of much of the statistical material. In 1940, however, it is estimated that rates will be down to the theoretical level indicated by the rate basis, since much of the equipment

probably will be new, expansion may tend to make operations somewhat expensive, and operators may be cautious regarding excessive rate decreases. By 1950, the authors of the study believe rates should be somewhat closer to the figures indicated under rate basis. It is assumed, the survey states, "that domestic cargo rates, unlike passenger rates, will tend to cut under costs to some extent as

in order to develop the business and in order to test the effect of reduced rates on cargo traffic. When traffic estimates made later, it appears that this considerable decline from present rates will have its consequences in an appreciable volume of cargo business to be transacted by the airlines in the near future.

"International Passenger and Cargo operations may be expected to run somewhat higher than the figures indicated by the rate basis analysis. However, it is assumed here that this additional expense will be compensated for by a greater degree of government aid in international operations. From the rate basis analysis provides a reasonable foundation for estimating international rates."

SEC Gets Bell's 1943 Statement

Bell Aircraft Corp. paid its president, Lawrence D. Bell, total compensation of \$106,050 for 1943, according to its annual report to the Securities and Exchange Commission.

Other high bracket salaries paid included \$66,750 to Ray P. Whitman, firm vice president, and \$50,000 to Omar L. Woodman, another vice president. In addition, \$12,521 was paid to Frank Wenzelbach, Bell's chief accounting officer, and \$42,750 for legal services.

Stock Agreement.—Mr. Woodman, under a stock purchase agreement with the company, purchased during 1943 400 common for \$4,000. At the time the purchase was made by Mr. Woodman, the market value

of this stock was reported to be approximately \$7,300.

The corporation's statement of profit and loss for the fiscal year showed sales and earnings under cost-plus-fixed-fee contracts of \$332,134,821. Cost of goods sold was \$239,823,347, leaving operating profit of \$112,309,240. Other income, such as dividends on purchases of stock and loans, boosted this to \$123,490,453, from which was deducted \$1,107,038 of interest expense, leaving \$121,323,415 as the net income for the year.

Profits.—Bell Aircraft Corp. reported a net income of \$121,323,415 for the year. The company's net income for the fiscal year, while \$136,340 was paid to R. L. Kanta & Co., as a service fee in connection with workmen's compensation self-insurance. **Stock Ownership.**—General Motors Corp. owns 1,000,000 shares of the company's 61 per cent capital stock, representing 29.11 per cent of that class.

United Gives Data On 1943 Income

United Air Lines, Inc., paid its president, W. Patterson, \$36,804 for 1943, according to the company's annual report filed with the Securities and Exchange Commission. J. A. Hensley, vice-president in charge of operations, was paid \$20,081, and Harold Cray, vice-president in charge of traffic, \$15,336.

The late firm of Mayer, Meyer, Aastrup & Hatt was paid \$66,000 for legal services during 1943. Paul Goshen, a partner, is a member of the law firm.

Auditors.—Arthur Andersen & Co., general auditors for United, cut \$53,728 for services during 1943.

United's statement of income for itself and its consolidated subsidiaries for 1943 showed operating revenues of \$27,620,564, of which \$14,760,181 was for transportation and operating expenses were \$23,423,719, leaving net earnings before taxes of \$7,234,745. Income from other sources amounted to \$458,665.

North American Reports on Salaries

North American Aviation, Inc., paid its president, J. H. Kindelberger, \$160,599 for the fiscal year ended Sept. 30, 1943, it was disclosed in the company's annual report to the Securities and Exchange Commission.

J. L. Atwood, first vice president, was paid \$12,284, and R. A. Lambeth, vice president and treasurer, \$36,200 for the same period. All are directors of the company.

Officers Get \$64,363.—Three officers at the company, not otherwise identified by name, were paid a total of \$64,363. An assistant chief engineer was paid \$26,893.

Attorneys for the company. Chadbourne, Wallace, Parks & Whitestone, were paid \$23,616 in legal fees. Haskins & Sells, independent public accountants with headquarters in New York, were paid \$25,550 for the fiscal year, while \$16,340 was paid to R. L. Kanta & Co., as a service fee in connection with workmen's compensation self-insurance.

Stock Ownership.—General Motors Corp. owns 1,000,000 shares of the company's 61 per cent capital stock, representing 29.11 per cent of that class.

The CAP League

ANY new legitimate organization formed to advance the cause of aviation deserves strong support from those who have faith in the future of American flying. Nationwide skepticism and confusion in aviation circles are evident, however, over the new Civil Air Patrol League which should be met with a forthright public statement clarifying the facts surrounding the League's formation and its entire long-range program.

The League's founding was announced in March, with endorsements by the President, General Arnold, and an impressive list of leaders in business, industry and labor.

The non-profit, non-partisan League announced that three of its main purposes at that moment were to launch a membership drive, start a campaign to cooperate with state and local CAP units in inducting 250,000 cadets to study aviation, and to start an educational campaign to interest communities in building airfields and airports after the war.

According to Thomas Beck, League chairman, the group is constituted not only to support CAP but the general education of the American public "in maintaining the number one position in the air for our country for all times—in war and in peace."

CAP, which has done a remarkable wartime job, as to remain operating as benevolent. The League, however, will not operate state or local units but serve as a means whereby many citizens who do not have the time or the qualifications to be effective as CAP members can nevertheless give support to the program.

Financing CAP, whose members have dug down

into their pockets repeatedly for barest operating expenses, arouses no argument. But throughout the League's publicity matter there has been a failure to list the other long-term plans or exactly how the League will operate, and who will control its policies. The top-heavy emphasis on nationally known names of persons who cannot possibly have the aviation background to take an active part in the League's program give some basis for widespread questioning of the actual policy-makers. Will they be civilians or Army officials?

If the League hopes to push local aviation improvements how can it work without local chapters? If CAP wings are to substitute for local League representation, where exactly is the distinction between CAP, which is an AAF auxiliary, and the League, which apparently is a civilian controlled group? What is to be the relationship between the League and already functioning local and national aviation associations with similar objectives? Throughout League statements to date has been the indication that other main purposes will be announced in the future. What are these? These questions are being asked widely. They do not originate on this page.

So far, the data given on the League's formation have not satisfied the ranks of aviation's public. As commendable as it is to strive for general education of the American public "in maintaining the number one position in the air for our country for all times," a more complete explanation of the program would be welcomed before soliciting more memberships ranging from \$3 to \$100. It would still ugly rumors that the League is merely a post-war pressure group for the military.

"Radical" Utility

ENGINEERS in the automobile industry make the frequent statement that the public is slow to take to wide variations from conventional motor car designs. They have gone on the record on this score for years. They cite as evidence the failure to sell in this country large numbers of miniature cars such as the Crosley and Austin. They remember the several body designs of about ten years ago which resembled the teardrop. They cite other sales failures, and make it clear that they can do no more than make gradual changes from year to year in accordance with the evolution of the public's ideas.

The designers of the post-war private plane now are delving the same general subjects, but they are urged not to take Detroit's arguments too seriously.

Actually, the motor car makers seem never to

realize that they have never put their complete facilities to work to give so-called radical designs a chance to sell. They have failed to put into their new designs all of the conflicts and compromises which the older models possessed. Parts distribution and service problems were never really solved with the perfection of widely sold models. The customer felt he was punished because his car was different, and he traded in his novelty on a conventional but more serviceable model—not because he shrank from being different.

The makers of tomorrow's lightplanes can take no better lesson from the motor car industry. The success of the radical no-gon, no-shell Ercoupe just before the war was an encouraging indication that the plane-buying public will get radically changed models which can be operated with relative economy and utility.

ROBERT H. WOOD



"SEAT-OF-THE-PANTS" FLYERS LAUGHED — BUT
**Dick Merrill stayed
with the Link!**



Chief Link Trainer Instructor Harry Martin, of Eastern Air Lines, discusses recent improvements in the Link with Capt. Dick Merrill

When Eastern Air Lines standardized on Link Training for pilots in 1937, Capt. H. T. (Dick) Merrill had been flying the big "Silverdome" for eight years.

Merrill was quick to evaluate the remarkable ability of the Link Trainer to reproduce conditions of actual flight. He became an earnest student of instrument flying. His enthusiasm got a tough boss some flyers of the "seat-of-the-pants" school, but Dick continued to spend much of his spare time in the Link.

Now sixteen years with Eastern, Merrill has nearly three million miles to his credit. For the Military Transport Division of Eastern Air Lines, he has flown military personnel and materiel around the world. Among Merrill's feats are two

outstanding records: first to fly the Atlantic Ocean both ways, first to fly the Atlantic round-trip with payload.

On the return leg of their round-trip flight to London, the weather was bad, with low ceiling, poor visibility, rain. Thanks to instrument flying skill, the crossing was "routinized."

Dick Merrill has probably spent more time in the Link Trainer than any other pilot of his length of service.

LINK AVIATION DEVICES, INC.
Binghamton, New York

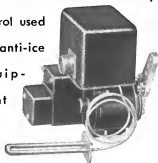
LINK MANUFACTURING COMPANY, LTD., Rochester, Ontario
Link Trainers, Aviation Systems, and other products contributing to the safety of flight

PEOPLE WHO NEVER MAKE THE HEADLINES

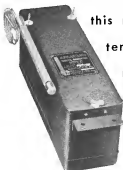


From the unrecognized private in the front lines, to the modest factory worker, there's a job to be done to the limit of their endurance.

One of the things our workers make is this automatic safety control used on anti-ice equipment for



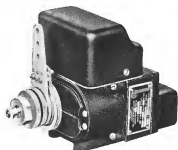
bombing planes. Another product built for our flying forces is



this motorized temperature modulating control. It is used for maintaining cabin, cockpit, carburetor, or air intake temperatures, where close control is required. It may be adapted for other tempera-

ture controlling requirements.

In addition, for use as "muscle motors" in many types of applications requiring automatic or electrically controlled power, our workers make several types of Servos, such as the one illustrated below. Its operation can



save planes and pilots when called upon to act!

If you build aircraft and this type of equipment will help make your planes better or safer to fly, we will be glad to supply engineering data and application information on request.



WHITE-RODGERS ELECTRIC CO.



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